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TAX WHYS
UNDERSTANDING TAXES

WORKSHOP LEADER'S HANDBOOK

Department of the Treasury
Internal Revenue Service
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TAX WHYS: UNDERSTANDING TAXES

WORKSHOP LEADER'S HANDBOOK

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INTRODUCTION

Since as far back as 1773, when colonists dumped chests of tea into Boston harbor, Americans have taken a lively interest in issues concerning taxation. Tax Whys: Understanding Taxes, a new series of six 15-minute video tape/film programs, helps youths of high school age understand the various aspects of these issues. The series complements existing Internal Revenue Service (IRS) educational materials that, for more than 30 years, have provided schools with materials primarily designed to help students understand and learn how to prepare tax forms. The new film series, which deals with the basic economic concepts that underlie the principles of taxation, should be used in conjunction with these existing IRS materials.

The new series emphasizes the impact that taxes have on individuals as consumers, as producers, and as members of society. The series also deals with issues and public policies associated with taxation to ensure that students understand the ties between tax policies and their social and economic consequences. Students should come to realize that sincere, intelligent people may disagree about tax policies because they believe that some economic and social objectives are more important than others.

Tax Whys is the result of a cooperative effort by education, telecommunications, and economic education agencies serving the 50 states and the District of Columbia; the Department of Defense Dependents Schools; the Joint Council on Economic Education (JCEE); the Agency for Instructional Technology (AIT); and the U.S. Internal Revenue Service (IRS).

The six film programs are accompanied by a teacher's guide which contains background information along with suggestions for pre- and post viewing classroom activities. Both the films and the print materials can be easily integrated into various subjects taught in schools and can be adapted to the needs of secondary school students with varied interests and aptitudes.

Purpose of the Workshop Leader's Handbook

Experience with other economics film series has shown that classroom learning is maximized if the teachers are properly prepared to use the films. Therefore, a special handbook has been prepared for those who will be conducting teacher inservice programs on how to use the series. The handbook focuses primarily on (1) developing teacher understanding of the various economics principles and concepts related to taxation, (2) how to integrate the series into the different subjects and courses taught in the nation's secondary schools, and (3) providing a broad array of strategies and activities that workshop participants can use with their students.

Organization of the Workshop Leader's Handbook

The handbook contains a short prototype workshop, six instructional modules designed for use in longer workshops, a bibliography of materials for teaching about taxation.

To assure flexibility, the prototype workshop and the instructional modules are made up of a series of independent activities, each designed to achieve a specific objective. The activities in the various modules can be used in different combinations depending upon the amount of time available and the particular objectives to be achieved in the workshop.

A brief discussion of each section of the Handbook follows.

I. Short Prototype Workshop

Contains materials to provide school administrators, supervisors, and classroom teachers an overview of the Tax Whys series. The activities in this workshop are not designed to provide instruction on substantive economic content. Rather, the focus is on (1) providing a general description of the content and components of the program, (2) providing essential information on how schools can obtain the Tax Whys films and related print materials, as well as on opportunities for teacher inservice training.

Handouts and visuals in the prototype workshop are identified by the letter P (for prototype) followed by the number of the objective

to which the handout or visual relates. For example, the letter and number designations in "Handout P-3" and "Visual P-3" refer to Prototype Workshop, Objective 3.

II. Building a Longer Workshop

Consists of six instructional modules, one for each of the programs in the Tax Whys series.

Workshop activities described in the various modules serve three major purposes. Some are designed to expand teachers, understanding of the economic principles and concepts dealt with in the Tax Whys film programs; others are designed to help teachers make effective use of materials contained in the Tax Whys Teacher's Guide; still others provide additional materials and activities that workshop participants can use when they return to their classrooms.

Handouts and visuals are identified by two numbers. The first refers to the module; the second refers to the objective with which the handout or visual is to be used. For example, the designations "Handout 2-1" or "Visual 2-1" refer to Module 2, Objective 1. Handouts and visuals are placed at the end of the activity with which they are used.

For convenience, each module has the same title as the Tax Whys program to which it relates.

III. Bibliography of Resource Materials

Contains an annotated list of printed and audiovisual materials useful for teaching about taxation. The materials are classified as

follows: general references, books and pamphlets, films, filmstrips, games and simulations, and tapes. Workshop leaders should have as many of the materials as possible available, and allow time for participants to review them during the workshop.

IV. Teacher's Guide

A number of the activities in the prototype workshop and the instructional modules utilize material in the Teacher's Guide. Workshop leaders should become familiar with the organization and contents of the guide before they conduct workshop sessions. Ideally, each participant should be provided with a copy of the guide at the beginning of the workshop. If this is not possible, workshop leaders should duplicate and distribute to participants the lessons in the Teacher's Guide that relate to the films that are shown.

Additional copies of the guide can be obtained by writing to: Taxpayer Information and Educational Research, Room 7215, Internal Revenue Service, 1111 Constitution Avenue, N.W., Washington, D.C. 20224.

V. Understanding Taxes and the Instructions for Completing the Income Tax 1040A and 1040EZ Forms.

Both of these booklets contain background information and data needed to conduct activities included in several of the instructional modules. Workshop leaders should become familiar with the contents of each prior to conducting a workshop.

Every participant should be provided with one copy of each booklet to use as references during the workshop.

Additional copies of these booklets can be obtained from your district IRS office. The addresses and telephone numbers for the district offices are listed on the last page of this handbook.

Planning Guide

Suggestions for using this handbook to plan a Tax Whys workshop are given below. They are presented as a checklist that workshop leaders can use to keep track of tasks that have been completed and tasks that still must be done.

Examples of program outlines for a half-day workshop and for a one-day (six-hour) workshop follow.

[] 1. Preview the Tax Whys programs and read the related materials in the Teacher's Guide.

[] 2. Determine the length of time to be devoted to instruction about how to use Tax Whys.

[] 3. Read the objectives for each module and select the objectives you wish to emphasize in the workshop.

[] 4. Compile the workshop objectives into a handout that can be distributed to participants at the beginning of the workshop.

[] 5. Duplicate the handout of workshop objectives.

[] 6. Duplicate the handouts associated with the workshop objectives.

[] 7. Prepare the visuals associated with the workshop objectives.

[] 8. Obtain sufficient copies of the Teacher's Guide to provide one for each workshop participant.

OR

Duplicate the lessons from the Teacher's Guide that correspond to the films to be shown in the workshop.

[] 9. Obtain from the Internal Revenue Service sufficient copies of Understanding Taxes and the current Income Tax 1040A and EZ Form instruction booklet to provide one of each per participant.

OR

Duplicate the pages in these booklets that are used as handouts or reference materials during the workshop.

[] 10. Obtain the equipment needed for the workshop.

- [] Film projector and screen or appropriate video equipment
- [] Overhead projector
- [] Chalkboard or blank transparencies and a marking pencil.

AN EXAMPLE OF

A HALF-DAY WORKSHOP

(Three-and-one-half Hours)

Welcome and Introduction	30 minutes
Activities in Module I	
Read All About It (Objective 1)	15 minutes
Would You Rather...? (Objective 2)	10 minutes
View film/tape "Taxes Raise Revenues" (Objective 3)	20 minutes
Blazing Taxes (Objective 5)	30 minutes
Break	15 minutes
Activities in Module II	
Are We Encouraged to Buy? (Objective 1)	10 minutes
View film/tape "Taxes Influence Behavior" (Objective 2)	20 minutes
Tax Incentives (Objective 3)	30 minutes
Ways to use Tax-Whys	30 minutes

AN EXAMPLE OF

A FULL-DAY (SIX - HOUR) WORKSHOP

Welcome and Introduction	30 minutes
Activities in Module I	
Read All About It (Objective 1)	15 minutes
Would You Rather...? (Objective 2)	10 minutes
View film/tape "Taxes Raise Revenues" (Objective 3)	20 minutes
Blazing Taxes (Objective 5)	30 minutes
Where It Comes From... (Objective 6)	40 minutes
Activities in Module II	
Are We Encouraged to Buy? (Objective 1)	10 minutes
View film/tape "Taxes Influence Behavior" (Objective 2)	20 minutes
Analyzing Tax Policy (Objective 6)	40 minutes
Activities in Module IV	
Is a Tax Progressive, Proportional, or Regressive? (Objective 1)	20 minutes
View "Taxes Affect Different Income Groups" (Objective 2)	30 minutes
Designing a Tax System (objective 3)	20 minutes
Sales Taxes: Progressive or Regressive (Objective 4)	20 minutes
Ways to Use Tax Whys	30 minutes

Note: This suggested outline allows approximately 25 minutes for breaks. It does not incorporate time for a meal.

PART I

SHORT PROTOTYPE WORKSHOP

This section consists of a single module made up of six basic activities. The primary purposes of the module are to: (1) introduce the Tax Whys series to school administrators, supervisors, and classroom teachers; (2) to provide school personnel information on the availability of the films and accompanying print materials; (3) to alert teachers to opportunities for inservice training.

The amount of time required to complete all of the activities is approximately one hour and thirty minutes. The module can be adapted for even shorter "awareness" type workshops or programs by omitting one or more of the activities.

PROTOTYPE WORKSHOP

ACQUIRING AN OVERVIEW OF "TAX WHYS"

Participant Objectives:

1. Understand the objectives of the workshop.

(What Will I Get Out of This Workshop?) **5 minutes**

2. A. View and briefly discuss one of the Tax Whys programs.

   B. Ascertain portions of the curriculum or courses in which the program can be used.

(A Preview of "Tax Whys") **20 minutes**

3. Understand the organization and content of the Tax Whys Teacher's Guide.

(A Close Look at the Teacher's Guide) **15 minutes**

4. View and briefly discuss a second Tax Whys program.

(Acquiring a More General View) **10 minutes**

5. A. Acquire an overview of the rationale, objectives, and general content of the Tax Whys series.

   B. Ascertain portions of the school curriculum in which each program in the Tax Whys series can be used.

(Acquiring An Overview) **20 minutes**

6. A. Acquire information about the availability of the Tax Whys films and related print materials.

   B. Acquire information about teacher inservice opportunities and resource materials available to schools using the Tax Whys series.

(How Can Our School Get the Materials and Services Needed to Use "Tax Whys"?) **15 minutes**

WHAT WILL I GET OUT OF THIS WORKSHOP?

(Time: 5 minutes)

Objective 1:

Understand the objectives of the workshop.

Materials:

Handout P-1

Description:

After welcoming the participants, distribute Handout P-1. Go over the objectives with the participants, providing a brief description of the various activities that the objectives involve.

Take care of any necessary housekeeping details (e.g., procedures for receiving reimbursement, parking permits, planned meals, etc.).

A PREVIEW OF "TAX WHYS"

(Time: 20 minutes)

Objective 2:

A. View and briefly discuss one of the Tax Whys programs.

B. Ascertain portions of the curriculum or courses in which the program can be used.

Materials:

One of the Tax Whys programs and appropriate equipment for viewing.

Description:

Show the Tax Whys program selected for viewing. Have participants share their reactions to the program. Then, have them suggest subjects, disciplines, courses, or units of study in which the program can be effectively used.

Handout P-1

WORKSHOP OBJECTIVES

Here is what we hope to accomplish in this workshop. At the end of the workshop, you should:

1. Have an overview of the rationale, objectives, and the general content of the TAX WHYS series.
2. Understand the organization and content of the Teacher's Guide for the TAX WHYS series.
3. Be aware of the various parts of the curriculum in which programs in the TAX WHYS series can be used.
4. Know how to obtain the TAX WHYS films and related print material.
5. Be aware of teacher inservice opportunities and resource materials available to schools using the TAX WHYS series.

A CLOSE LOOK AT THE TEACHER'S GUIDE

(Time: 15 minutes)

Objective 3:

Understand the organization and content of the Tax Whys Teacher's Guide.

Materials:

Sufficient copies of the Teacher's Guide to provide one for each participant (or copies of the Teacher's Guide materials for the program viewed in connection with the previous objective--Objective 2).

Description:

Distribute copies of the guide (or the guide material for the program viewed earlier). Describe the organization of the guide by pointing out the various sections of the lesson and the purposes served by each. If time permits, have participants read and briefly discuss the commentary, pre- and post-viewing activities, and the student handout.

Note: The introductory section of the Teacher's Guide contains a comprehensive discussion of the content, organization and other special features of the guide.

ACQUIRING A MORE GENERAL VIEW OF "TAX WHYS"

(Time: 10 minutes)

Objective 4:

View and briefly discuss a second Tax Whys program.

Materials:

A Tax Whys program (different from that shown in Objective 2) and appropriate equipment for viewing.

Description:

The primary purpose for showing the second program is to give participants a more general view of the series. The program, in conjunction with the program shown in Objective 2, should illustrate the overall balance of the series with respect to its representation of males and females, racial or ethnic groups, geographic and socio-economic settings, etc..

ACQUIRING AN OVERVIEW

(Time: 20 minutes)

Objective 5:

A. Acquire an overview of the rationale, objectives, and general content of the Tax Whys series.

B. Ascertain portions of the school curriculum in which each program in the Tax Whys series can be used.

Materials:

Handout P-5; Tax Whys brochure (one for each participant).

Description:

Distribute Handout P-5 and the Tax Whys brochure. Go over the critical points relative to (1) the objectives of the series, (2) program descriptions, (3) consortium members and their respective roles in the development of the series.

Using the information provided in the descriptions for the individual programs, have participants suggest how each of the programs might be integrated into the high school curriculum.

Note. The following high school courses generally incorporate topics of units of study that are directly concerned with taxation: citizenship/government; consumer economics; economics; family living; general business; United States history; business, consumer, and general mathematics courses; recordkeeping and accounting courses; cooperative occupational education courses; distributive education courses.

HANDOUT P-5

THE TAX WHYS SERIES

Goals And Objectives

The Tax Whys series introduces high school students to some of the major economic issues and public policies related to taxation in the United States. The series emphasizes how economics concepts and principles can be used to understand tax policies and related issues. More specifically, the series is designed to help students

- Recognize how taxes affect the U.S. economy and individuals in their roles as producers, consumers, and citizens;
- Recognize that a knowledge of economics helps citizens make more informed and reasoned judgments on matters related to taxation;
- Apply an economic decision making model to a variety of tax issues.

General Description

The series consists of six 15-minute video tape/film programs. Each program dramatizes tax issues that have a bearing on the lives of young people and their parents. Teen-agers are the main characters in each program. Special visuals are sometimes used to emphasize selected economic concepts and their application to taxation. Following is a synopsis of the basic content of individual programs.

1. Taxes Raise Revenues

Major understanding - Taxes are used to raise revenue and transfer resources from use by private individuals to use by various levels of government. Major concepts - taxes, public goods and services, opportunity cost.

2. Taxes Influence Behavior

Major understanding - Taxes and tax reductions influence people's behavior by discouraging or encouraging certain activities. Major concepts - taxes, tax reductions, excise taxes, tariffs, sales taxes, business taxes and payments.

3. Taxes Involve Conflicting Goals

Major understandings - (a) Taxation involves a compromise between conflicting goals; (b) People who make the same income may pay the same amount of taxes because of legislative decisions. Major concept - opportunity cost and tradeoffs.

4. Taxes Affect Different Income Groups

Major understandings - (a) Using income as a measure of ability to pay, taxes affect different income groups unequally; (b) A combination of regressive and proportional taxes makes the U.S. tax system proportional for the most part. Major concepts - progressive tax, regressive tax, and proportional tax.

5. Taxes ... Can They Be Shifted?

Major understanding - Taxes can have different effects on different income groups. Major concepts - direct tax, indirect tax, a tax shift.

6. Taxes ... Are They Fair?

Major understandings - (a) It is difficult to get agreement on what a "fair tax" is because people have different values and priorities; (b) Two criteria that can be used to assess tax fairness are benefits received and ability to pay. Major concepts - benefits received, ability to pay based on wealth, ability to pay based on income.

HOW CAN MY SCHOOL GET THE MATERIALS AND SERVICES NEEDED TO USE TAX WHYS?

(Time: 10 minutes)

Objective 6:

A. Acquire information about the availability of the Tax Whys films and related print materials.

B. Acquire information about teacher inservice opportunities and resource materials available to schools using the Tax Whys series.

Materials:

Sufficient quantities of each of the following to provide one per participant:

- Information packets containing (1) broadcast schedule, if the program is being aired over public television; (2) an address and telephone number for getting the Tax Whys films and Teacher's Guide; (3) the address and telephone number of the regional/district IRS office from which Understanding Taxes and the Income Tax 1040A and 1040EZ Forms instruction booklet can be obtained; (4) descriptions of any planned teacher inservice programs on Tax Whys along with the name, address, and telephone number of the person to be contacted.
- The most recent edition of Understanding Taxes.
- The current Income Tax 1040A and EZ instruction booklet.

Description:

Distribute the information packets and booklets, then go over the individual items with the participants. In the discussion of Understanding Taxes and the Income Tax 1040A and EZ instruction booklet, point out specific Tax Whys programs for which teachers will find information in these items especially useful (see "Tax Whys: Understanding Taxes and Internal Revenue Service Materials" in the Teacher's Guide.)

Suggest that with schools or school districts obtain print items from the IRS, it would be wise to designate one person in the school or district as the contact person rather than having each teacher submit separate orders.

PART II

BUILDING A LONGER WORKSHOP

This section consists of six instructional modules, each dealing with a different program in Tax Whys. The numbers and titles of the modules correspond with the numbers and titles of the Tax Whys programs to which they are related.

The materials and activities in the individual modules serve several purposes. First and foremost, they are designed to expand workshop participants' understanding of the economics concepts and the tax issues dealt with in the Tax Whys series. They also provide concrete examples of approaches and materials that teachers can use in presenting these concepts and issues to high school students.

When used in their entirety, the six modules provide approximately 20 hours of instruction. Because of limited time, workshop leaders may not be able to use all of the activities in all of the modules. For this reason each activity is designed to achieve a specific objective and may be used independently of other activities in the same module. Thus, workshop leaders may combine the activities in numerous and different ways depending on available time and the objectives to be achieved.

For specific suggestions on planning a workshop and examples of program outlines for a half-day and a one-day workshop, see "Planning Guide" in the introductory section of this Handbook.

MODULE 1

TAXES RAISE REVENUES

Participant Objectives:

1. A. Discuss real and hypothetical examples of public goods and services which some people think are inadequate or supplied in insufficient quantities.

   B. Give examples of public goods and services at the local, state, and federal levels.

(Read All About It) **15 minutes**

2. A. Give reasons why taxes must be compulsory.

   B. Give examples of opportunity costs associated with the improvement of public goods and services.

(Would You Rather...?) **10 minutes**

3. A. View and briefly discuss "Taxes Raise Revenues."

   B. Discuss how the program relates to other topics and courses in the school curriculum.

   C. Review discussion questions provided in the Teachers' Guide for Program One.

(Taxes Raise Revenues) **20 minutes**

4. Give examples of taxes based on income, consumption, and wealth.

(Common Taxes) **10 minutes**

5. Experience and discuss a student activity from the Teacher's Guide for "Taxes Raise Revenues."

(Blazing Taxes) **30 minutes**

6. A. Compare and contrast the amount of resources diverted from the private sector by each level of government: federal, state, and local.

   B. Review and discuss the Student Handout provided in the Teacher's Guide for Program One.

(Where It Comes From. . .) **45 minutes to one hour**

7. Give rationale for providing certain government goods and services at different levels of government: (a) federal; (b) state; (c) local; (d) combination of levels.

(Where It Goes) **45 minutes to one hour**

8. Rank selected countries according to: (a) their 1978 total taxes per capita, and (b) their total 1978 taxes as a percentage of gross domestic product. Suggest possible reasons for these rankings.

(How Do We Rank?) **30 minutes**

9. Assess the extent to which selected goods and services meet the two basic criteria that apply to pure public goods.

(Public Goods and Services) **20 minutes**

READ ALL ABOUT IT

(Time: 15 minutes)

Objective 1:

A. Discuss real and hypothetical examples of public goods and services which some people think are supplied in insufficient quantities.

B. Give examples of public goods and services at the local, state, and federal levels.

Materials:

Visual 1-1; Chalkboard or blank transparency.

Description:

This pre-program activity introduces the subject of public goods and services and conveys to participants that scarcity exists. In other words, the wants for specific government goods and services are greater than the resources to satisfy all these wants from available tax revenues.

Use the newspaper headlines on Visual 1-1 to initiate a discussion about goods and services usually provided by federal, state, and local governments which participants think could be improved or should be increased by allocating more tax dollars to them. In the discussion, encourage participants to describe similar situations in their own communities that also suggest a scarcity of government resources -- i.e., revenues.

Ask participants to name the publicly provided goods and services associated with the headlines on Visual 1-1. Then ask them

to think of other goods and services provided by governments. Record these on the chalkboard or blank transparency.

Ask participants to note the various public goods and services shown in the film program. What is the total number?

VISUAL 1-1

EXTRA EXTRA EXTRA

EXTRA READ ALL ABOUT IT! EXTRA

DETERIORATING PIPLINES
INTERRUPT WATER SUPPLIES

SCHOOLS CLOSE IN MARCH - GOVERNOR SAYS NO MORE FUNDS

SLOW COLLECTION CAUSES
GARBAGE TO PILE UP IN STREETS

ONE-THIRD OF NATION'S BRIDGES UNSAFE

CRIME RUNS RAMPANT: ONLY 10 SQUAD CARS IN OPERATION

WOULD YOU RATHER...?

(Time: 10 minutes)

Objective 2:

A. Give reasons why taxes must be compulsory.

B. Give examples of opportunity costs associated with the improvement of public goods and services.

Material:

Visual 1-2

Description:

This activity introduces program one. Show Visual 1-2 and take a straw vote on the questions. When people are asked to make individual choices, such as these, they often show a preference for private goods. There are high opportunity costs associated with tax payments. People must give up purchases or forgo savings in order to pay taxes. Ask participants to mention the opportunity costs they incur when they pay their federal income tax.

Ask the following questions:

- What would happen if paying taxes were voluntary? Why? (Many people would not pay some or all of their taxes because they would be giving up goods and services they could buy with the money. They may be said to perceive that their opportunity costs are too high.)
- If governments provided fewer goods and services, how would you be affected? (You would have to get along with fewer or lower quality goods and services that you receive from

governments and/or you would have to buy more goods and services from the private sector, such as roads, water supplies, parks, police and fire protection, education, etc.).

Ask participants to watch for examples of opportunity costs in the program.

VISUAL 1-2

WOULD YOU RATHER SPEND...

- $100 TO REPAIR A TINY SECTION OF SOME CITY STREET OR $100 ON GOOD MAINTENANCE FOR YOUR CAR?

- $1000 TOWARD THE COST OF A NEW MISSILE OR $1000 ON YOUR HOME INSULATION, OR REPAIRS?

- $200 TO DECORATE THE CAPITOL BUILDING OR $200 TO DECORATE YOUR OWN HOUSE?

- $1500 TO SEND SOME UNKNOWN CHILD TO PUBLIC SCHOOL OR $1500 TO IMPROVE YOUR OWN EDUCATION?

- $5000 IN FEDERAL INCOME TAX OR $5000 TO SPEND PRIVATELY AS YOU WISH?

PROGRAM ONE: TAXES RAISE REVENUES

(Time: 20 minutes)

Objective 3:

A. View and briefly discuss "Taxes Raise Revenues."

B. Discuss how the program relates to other topics and courses in the school curriculum.

C. Review discussion questions provided in the Teacher's Guide for Program One.

Materials:

Tax Whys film "Taxes Raise Revenues" and appropriate viewing equipment; Tax Whys Teacher's Guide (or copy of Teacher's Guide materials for Program One).

Description:

After participants have viewed the film have them discuss the opportunity costs depicted and give examples of similar opportunity cost situations in their own communities. Also have them discuss how the program relates to their curricula. Review the "After the Program" questions in the Teacher's Guide.

COMMON TAXES

(Time: 10 minutes)

Objective 4:

Give examples of taxes based on income consumption, and wealth.

Materials:

Handout 1-4

Description:

This activity gives participants background for the "Before the Program" activity in the Teacher's Guide for Program One: "Taxes Raise Revenues."

The three most common economic bases for taxation are income, consumption, and wealth. Ask participants to label the income-related taxes on Handout 1-4 with an I (includes social security and corporate taxes, for which the tax liability usually increases as incomes increase); label consumption taxes with a C (includes sales and excise taxes levied on purchases of goods and services) and label taxes on wealth with a W (includes property and estate taxes.)

HANDOUT 1-4

LIST OF SOME COMMON TAXES

Federal	State	Local
Income tax	Income tax	Property tax
Inheritance tax	Sales tax	Income tax
Social Security tax	Gasoline	Sales tax
Corporate Income tax	Liquor	Utility tax
Excise taxes	Beer	Amusement tax
Tire	Wine	Hotel/motel room
Fishing equipment	Liqueurs/cordials	Parking
Firearm, ammunition	Real estate transfer tax	Auto registration
Airplane ticket	Corporate income tax	Animal license
Gasoline & diesel fuel	Inheritance tax	
Lubrication oil	Auto registration	
Telephone	Lottery	
Liquor	Cigarettes	
Beer	Utilities	
Wine		
Cigarettes/cigars		
Liqueurs/cordials		

BLAZING TAXES

(Time: 30 minutes)

Objective 5:

Experience and discuss a student activity from the Teacher's Guide for "Taxes Raise Revenues."

Materials:

Teacher's Guide for Program One; Handout 1-5

Description:

This activity helps participants to acquire information and training that will help them use the role-play activity "Blazing Taxes" in their classes. The Teacher's Guide recommends that the activity be used after students have viewed the film "Taxes Raise Revenues." The activity helps students understand why some people oppose one tax or another while other people support the same taxes. Support or opposition is often based on the perceived benefits of the government goods and services the tax may provide as well as on the perceived tax burden. Since the participants in the role-play have different values, it is difficult to objectively assess the arguments the players give.

Distribute Handout 1-5, assign roles. If the class is large, you may wish to have participants to work in pairs or you may add roles for other townspeople.

Examples of possible positions: The widow living on a fixed income could argue for a local income tax to pay for sidewalks for an entertainment tax, and for a tax on alcoholic beverages.

The storekeeper may also favor the sidewalks, but he might be against a tax on business property.

HANDOUT 1-5

BLAZING TAXES

SCENE: Community meeting in a western town (circa 1890)

Roles:

- Town mayor
- Sheriff
- Deputy sheriff
- School teacher
- Saloon owner
- Saloon piano player
- Armed cowboy
- Storekeeper
- Undertaker
- Cattle rancher
- Sheep rancher
- Family of poor homesteaders
- Widow living on a fixed income

Community needs:

- Higher salaries for sheriff and deputy
- School house and one additional teacher
- Judge and courtroom
- Sidewalks
- New sewage ditches

Possible taxes:

- Property tax on ranches and business properties
- Income tax
- Tax on alcoholic beverages
- General sales tax
- Entertainment tax
- Personal property tax on horses, cattle, sheep
- Tax on purchase of new firearms

Your role is _____.

Determine the type of taxes you would oppose. Determine which taxes you would support. You will be considering how much you will have to pay in taxes (your tax burden) and the benefits you expect to receive from the goods and services provided from the taxes. You must also consider the benefits to society as a whole. You will try to convince others to support your position. You may make any reasonable assumptions you wish about the community.

Notes:

WHERE IT COMES FROM...

(Time: 45 minutes to one hour)

Objective 6:

A. Compare and contrast the amount of resources diverted from the private sector by each level of government: federal, state, and local.

B. Review and discuss the Student Handout provided in the Teacher's Guide for Program One.

Materials:

Handout 1-6; Student Handout for Program One from Teacher's Guide; chalkboard or blank transparency; one copy for each participant of the article "History of Taxation," in IRS Publication 21, Understanding Taxes 1985.

Description:

This activity enables participants to understand the relative size of federal compared to total state and local government tax receipts and to see what the trends during the last half century have been. Many of the changes in relative importance of certain taxes as a proportion of total tax receipts are the result of changes in tax policies, income, wealth and profits.

For background, you may want to have participants read the article on "History of Taxation" from Understanding Taxes 1985.

Part A: Begin by distributing all the handouts. Ask participants to work in pairs as they familiarize themselves with the tables in the handouts. Then ask each pair to write down five

important generalizations that can be made from the data. For example:

- The federal government receives more revenue per year than all state and local governments combined.
- Sales and gross receipts taxes bring in more state and local revenue than individual income taxes.
- Property taxes bring in far more state and local revenue than individual income taxes and corporation income taxes combined.
- The percentage of taxes paid to all levels of government in the U.S. grew greatly since 1940.
- Tax receipts have increased more than the rate of inflation since at least 1940.

As pairs report on their generalizations, you may want to make notes on the chalkboard or a blank transparency.

To further assist participants in meeting Objective 6, you may want to ask some questions based on the data in the tables. It is not important for participants to memorize numerals and percentages, but it is important for people to know how to read and interpret tables of this kind.

1. What are the two largest sources of federal government receipts? (See Table 1: individual income taxes and social security.)

2. Which federal receipts more than doubled between 1975 and 1982? (Table 1: individual income taxes, social security, excise taxes, customs duties, and earnings of the Federal Reserve System).

3. Which federal tax brings in the least revenue? (Table 1: estate and gift taxes).

4. What were the two largest sources of state and local government revenues in 1979 and 1982? (Table 2: sales and gross receipts taxes and "other").

5. Which state and local tax brings in the least revenue? (Table 2: corporation net income taxes).

6. Looking at the year 1982, rank all government revenues by size, combining information in Table 1 and Table 2.

(1) Federal individual income taxes

(2) Federal social security

(3) State and local "other"

(4) State and local sales and gross receipts taxes

(5) State and local revenue from the federal government

(6) State and local property taxes

(7) State and local individual income taxes

(8) Federal corporation income taxes

(9) Federal excise taxes

(10) Federal receipt of earnings by the Federal Reserve System

(11) State and local corporation income taxes

(12) Federal customs duties

Part B: Three of the criteria for a good tax are: Revenue productivity - A tax satisfies the criterion of revenue productivity if it meets revenue needs for a considerable number of years without requiring political measures such as legislative action or special public votes on tax matters. Most good taxes bring in more revenue as business and individual incomes increase. However, some taxes, such as property taxes, can bring in relatively undiminished revenues even during times of recession.

Administrative efficiency - An administratively efficient tax can be easily collected and carries a relatively low administrative cost compared to the revenues generated. Both the sales tax and the income tax are inexpensive for governments to collect (less than 1 percent of the revenues), while the property tax is expensive to administer because the assessment process is difficult and time-consuming.

Political acceptability - In general, the public accepts taxes which can be paid in small increments. Taxes which are withheld from salaries or which are hidden in some way cause little voter reaction. In some European countries all sales taxes are included as part of the price of a good or service, so the average person doesn't even recognize the tax. (However, it is possible to argue that "hidden" taxes are undersirable precisely because people may not be aware that they are paying such taxes.) Frequently taxes are also acceptable when people can see how their tax dollars are used and

when they approve of these expenditures.

Ask participants to rate the sales tax, the individual income tax, and the property tax in terms of these three criteria. (The answers are given in the above explanations. Opinions about their political acceptability will vary.)

Part C: Have students read and answer the questions for the Student Handout provided in the Teacher's Guide for Program One.

HANDOUT 1-6

Table 1

Federal Government Receipts for Selected Fiscal Years
(millions of dollars)

	1975	1979	1982
Total	279,090	463,302	617,766
Individual income taxes	122,386	217,841	297,744
Corporation income taxes	40,621	65,677	49,207
Social insurance taxes & contributions	84,534	138,939	201,498
Excise taxes	16,551	18,745	36,311
Estate & gift taxes	4,611	5,411	7,991
Customs duties	3,676	7,439	8,854
Miscellaneous receipts: Deposits of earnings by Federal Reserve System	5,777	8,327	15,186
All other	935	925	975

Source: Economic Report of the President, 1984.

Table 2

State and Local Government Revenues for Selected Fiscal Years
(millions of dollars)

	1975	1979	1982
Total	228,171	343,278	456,182
Property taxes	51,491	64,944	81,918
Sales & gross receipts taxes	49,815	74,247	93,636
Individual income taxes	21,454	36,932	50,785
Corporation net income taxes	6,642	12,128	15,033
Revenue from federal government	47,034	75,164	86,945
All other (licenses, other taxes & charges & miscellaneous revenues)	51,735	79,864	127,864

Source: Economic Report of the President, 1984.

Table 3
Federal, State, and Local Tax Receipts for Selected Fiscal Years

Year	Total $ Billion	Federal		State		Local	
		$ Billion	% of Total	$ Billion	% of Total	$ Billion	% of Total
1932	8.0	1.8	22%	1.9	24%	4.3	54%
1940	14.2	5.6	37%	4.2	30%	4.5	32%
1950	54.8	37.9	69%	9.0	16%	8.0	15%
1960	126.7	88.4	70%	20.2	16%	18.1	14%
1970	275.0	185.7	68%	50.5	18%	38.9	14%
1980	727.0	490.4	67%	151.5	21%	85.2	12%

All figures have been rounded.
Source: Tax Foundation, 1983.

Table 4
Average Annual Percentage Increase In Selected Economic Indicators

	1940-1950	1950-1960	1960-1970	1970-1980
Federal tax receipts	21.1	8.9	7.7	10.1
State tax revenue	9.1	8.6	10.3	11.1
Local tax revenue	5.9	8.5	7.9	8.5
Consumer price index (measure of inflation)	5.6	2.1	2.7	7.8

WHERE IT GOES

(Time: 45 minutes to one hour)

Objective 7:

Give rationale for providing certain government goods and services at different levels of government: (a) federal; (b) state; (c) local; (d) combination of levels.

Materials:

Student Handout for Program One from the Teacher's Guide; Handout 1-7

Description:

This activity consists of a brief discussion followed by an informal debate or series of debates. To begin the discussion, ask which government goods and services should only be provided at the federal level and why. There should be agreement about national defense and international affairs. When disagreement over a federal function arises, stop the discussion and write the function on the board. It will be assigned later as a topic for debate.

Next, distribute the handout for reference purposes and assign participants to work in teams of two or three people to prepare for each debate topic you will assign. Examples of topics and participant assignments include:

Resolved: The federal government should be solely responsible for providing public education in grades K-12.

- one team to argue the affirmative
- one team to argue that this is solely a function of

state government

- one team to argue that this is solely a local function
- one team to argue that this is a function in which all three levels of government should play a role

Resolved: Local governments should be solely responsible for assuring adequate housing for their inhabitants.

- one team to argue the affirmative
- one team to argue that this is a state responsibility
- one team to argue that this is a federal responsibility
- one team to argue that this is a reponsibility for all three levels of government

Resolved: The state government should be solely responsible for operating and maintaining all corectional facilities.

- one team to argue the affirmative
- one team to argue that this is a state responsibility
- one team to argue that this is a federal responsibility
- one team to argue that this is a responsibility for all three levels of government

Allow each team ten minutes to prepare its position. Then allow twenty minutes of debate time divided as follows:

Affirmative: 3 minutes (per team)

Negatives: 9 minutes (3 minutes for each team)

Rebuttal: 8 minutes (2 minutes for each team)

The rebuttals should be presented by a different team member than the one who argues the affirmative or negative.

Participants will probably not have the facts necessary to back up their arguments, so they will be forced to make some assumptions. However, it would be helpful to the exercise if debaters list the data that would have assisted them in their preparations.

Major issues which should emerge in the debates include those concerning equity and local autonomy. People who argue for increased federal support of public education would use equity arguments, e.g., some states have less income per capita, which results in a low ability to raise revenue. That, in turn, implies inferior support for the education of people who live in such a state. The autonomy argument stresses that some states and/or localities want to make their own curriculum decisions and argue against any national educational responsibilities because that could hinder local autonomy and even go as far as to promote a uniform curriculum throughout the country.

HANDOUT 1-7

Table 1

Federal Budget Outlays
(billions of dollars)

	1920	1930	1940	1950	1960	1970	1980	1982
Total	6.4	3.3	9.1	39.5	92.2	196.6	579.6	695.3
National Defense	4.0	.7	1.5	13.0	45.9	78.5	135.8	188.8
International affairs & finance	.4	.01	.05	4.7	3.1	4.3	10.7	11.2
Veterans benefits & services	.3	.8	.5	6.6	5.4	8.7	21.2	23.6
Interest	1.0	.7	1.1	5.8	8.3	18.3	64.5	82.5
All others	.6	1.1	5.9	9.4	29.5	86.7	347.3	389.2

Figures have been rounded.
Source: Tax Foundation.

Table 2

Average Annual Percentage Increase

	1940-1950	1950-1960	1960-1970	1970-1980
Fed. outlays for national defense & international affairs & finance	27.6	10.7	5.5	5.9
Fed. outlays for domestic civilian expenditures	11.3	7.1	10.2	14.3
Gross National Product	11.1	5.9	7.0	10.2
Consumer price index (measure of inflation)	5.6	2.1	2.7	7.8

Table 3

State and Local Government Expenditures for Selected Fiscal Years
(billions of dollars)

	Total	Education	Highways	Public Welfare	All Other[a]
1932	7.8	2.3	1.7	.4	3.3
1940	9.2	2.6	1.6	1.2	3.9
1950	22.8	7.2	3.8	2.9	8.9
1960	51.9	18.7	9.4	4.4	19.3
1970	131.3	52.7	16.4	14.7	47.5
1980	369.1	133.2	33.3	47.3	155.3
1982	435.3	154.6	34.5	58.1	188.2

Figures have been rounded.
Source: Economic Report of the President, 1984.

[a]Includes expenditures for hospitals, health, social insurance administration, veterans' services, air transportation, water transport and terminals, parking facilities, police protection, fire protection, correction, protective inspection and regulation, sewerage, natural resources, parks and recreation, housing and urban renewal, sanitation other than sewerage, general control, financial administration, general public buildings, interest on general debt and unallocable items.

HOW DO WE RANK?

(Time: 30 minutes)

Objective 8:

A. Rank selected countries according to: (1) their 1978 total taxes per capita, and (2) their total 1978 taxes as a percentage of gross domestic product.

B. Suggest possible reasons for these rankings.

Materials:

Handout 1-8; blank paper

Description:

This activity puts the relative size of taxation among countries into perspective. Ask half of the participants to rank the countries on Handout 1-8 according to their total taxes per capita for 1978. Ask the remaining participants to rank the countries according to their total 1978 taxes as a percentage of gross domestic product. Have both groups make lists beginning with the highest ranking and ending with the lowest. (Gross domestic product [GDP] measures the total value of all final goods and services produced in a country in one year. GDP differs only slightly from the Gross National Product in the United States because GDP does not include the net inflow of labor and property incomes from abroad, which is small in the case of the U.S.).

Ask participants to trade lists so that everyone can see both. Begin discussion by asking if anyone was surprised at any of the rankings. Have participants give possible reasons for the rankings.

Examples of other questions for discussion include:

- What characteristics do the top five countries have in common? (Preference for public goods and services and/or much government activity in the economy).
- How would it be possible for a centrally planned economy to have relatively low taxes? (If the government owns the natural and capital resources, it would not tax itself because it receives the revenues from employing these resources).
- Give arguments for and against being a citizen of Sweden. (Trade-offs between receiving private and receiving public goods and services).

HANDOUT 1-8

TAX REVENUES IN RELATION TO GROSS DOMESTIC PRODUCT IN SELECTED COUNTRIES
Selected Years 1968-1978[a]

Country	Total Taxes[b]			
	As percentage of gross domestic product			Per capita[c] 1978
	1968	1973	1978	
Australia	24.57	26.68	28.81	$2,352
Austria	35.30	37.58	41.43	3,202
Belgium	34.32	37.39	44.18	4,351
Canada	29.61	31.33	31.13	2,823
Denmark	36.14	42.33	43.59	4,772
Finland	33.66	34.59	36.54	2,904
France	35.38	35.66	39.67	3,509
Germany, Federal Republic of	32.08	36.27	37.82	3,940
Greece	24.32	22.71	23.12	794
Ireland	29.13	31.40	33.38	1,263
Italy	28.83	26.28	32.58	1,495
Japan	17.86	22.35	24.06	2,080
Luxembourg	29.77	35.55	49.38	4,821
Netherlands	38.81	43.73	46.79	4,390
New Zealand	25.93	27.88	30.36	1,786
Norway	37.69	45.29	46.94	4,670
Portugal	19.94	22.04	26.15	474
Spain	16.41	18.93	22.76	903
Sweden	39.81	43.45	53.50	5,625
Switzerland	22.58	26.27	31.47	4,198
Turkey	17.06	21.40	22.53	274
United Kingdom	34.77	31.96	34.45	1,906
United States	27.51	29.70	30.19	2,841

[a]Primarily calendar years; however, data for some countries reported on a fiscal year basis.
[b]Tax revenues collected by all levels of government, recorded on a cash basis.
[c]In U.S. dollars.
Source: Organization for Economic Cooperation and Development.

PUBLIC GOODS AND SERVICES

(Time: 20 minutes)

Objective 9:

Assess the extent to which goods and services meet the two basic criteria that apply to pure public goods.

Materials:

Handout 1-9

Description:

This activity shows that some goods and services supplied by government must be produced publicly while others need not be. Most government goods and services do not meet the two criteria for pure public goods, but there is wide agreement that it is extremely important to assure that these goods and services be available to everyone.

A "pure" public good is a product or service producers cannot withhold from consumers who refuse to pay and whose consumption by one person does not reduce its usefulness to others. The control of epidemic diseases, for example, cannot be provided exclusively to those who are willing to pay for it nor can it be withheld from those who are not able or not willing to pay. Likewise, in some situations, one person's use or consumption of a good or service does not prevent its concurrent use by others. The illumination that one person receives from a street light, for example, is not diminished by others' use of the same illumination.

Distribute Handout 1-9. Give participants about five minutes to think about all the items it mentions and then conduct a class

discussion about each. Ask the group to give reasons for providing each government good or service even though it may not meet both criteria.

(a) National defense: The best example of a pure public good because national defense cannot be withheld from those who do not pay (in this case, do not pay taxes), and its usefulness extends to all.

(b) Fireworks displays: A good example of a public good is a fireworks display that can be viewed by many people over a large area and no admittance or viewing charge is feasible. In other words, such displays can usually not be withheld from those who do not pay, and viewing by one person does not impair viewing by others.

(c) National forest and wilderness areas: Many people can view spectacular scenery without reducing the amount available to others. However, if crowding, littering, and the availability of public roads and other facilities eventually impair the pleasure the public derives from such areas, fees may have to be charged, which limits the "public good" nature of such facilities. In other words, fees for admittance to such areas may be necessary because use by too many people can impair use by all.

(d) Roads, highways, and bridges: Not pure public goods, since toll roads and bridges certainly are possible. However, it is difficult and expensive to exclude non-paying vehicles from a large system of highways and streets. Until traffic jams become a problem, the costs of letting additional vehicles use these facilities is low. However, in the case of heavy vehicles, e.g., trucks that may speed highway deterioration, many argue that special fees should be charged. The national interstate system can also be considered to be a pure public good to the extent that it was developed originally as a key ingredient of a national defense program that had to be nationally planned and coordinated.

(e) Education: There are private benefits from education, which is an important reason why private schools at all grade levels exist and often thrive. Private education makes overcrowded classrooms less likely. But most education is publicly financed because the benefits of an educated population -- one that can read, write, and calculate -- makes for a more skilled labor force and an informed citizenry.

(f) The legal system: Laws, courts, and enforcement agencies can establish codes of "rights and behavior" that benefit virtually

all residents of a country, whether people pay for such services individually or not. The legal system is clearly a public good. Moreover, the community wants all of its members to be under the jurisdiction of the legal system.

(g) The "arts" -- movies, concerts, plays, ballet, etc.: One person can enjoy a performance without reducing the benefits others in the hall receive so long as overcrowding does not take place. Moreover, on the one hand, a "work of art," once developed and recorded, is available for all future generations, particularly through television, radio, home reproduction, and other mass outlets. On this view they are public services, but on the other hand, it is possible to treat these productions as basically private goods. Access to such reproductions is not usually free since charges for tickets, access to cable television channels, etc., make it possible to exclude those who do not pay for these services or have the right of access to them. It is thus possible to treat "the arts" as either public or private goods, depending on circumstances and/or whether the sponsor is a private or public entity.

HANDOUT 1-9

The two basic criteria of public goods are:

1. Non-exclusion - People cannot be excluded from the benefits of a good or service even if they do not pay for using or enjoying it.
2. Shared consumption - One person's use or consumption of a good or service does not reduce its usefulness to others.

The following is a list of goods and services often provided -- or largely subsidized -- by government agencies. To what extent do each of these meet the criteria of being public goods or services? Why or why not?

(a) National defense

(b) Fireworks displays

(c) National forest and wilderness areas

(d) Roads, highways, and bridges

(e) Education

(f) The legal system

(g) The "arts" -- movies, concerts, plays, ballet, etc.

MODULE 2

TAXES INFLUENCE BEHAVIOR

Participant Objectives:

1. A. Discuss the effects that tax policy may have on the consumption of selected goods.

   B. Review Teacher's Guide activity recommended for use before showing Program Two.

   (Are We Encouraged To Buy?) **10 minutes**

2. View and discuss "Taxes Influence Behavior."

   (Taxes Influence Behavior) **20 minutes**

3. Complete and discuss the Student Handout provided in the Teacher's Guide for Program Two.

   (You're In Congress) **40 minutes**

4. Determine the incentive effects of specified tax breaks and decide who might support each tax incentive.

   (Tax Incentives) **30 minutes**

5. A. Give reasons why taxes are sometimes used to discourage behavior.

   B. Give examples of ways in which the sales, property, and income taxes can discourage economic activity.

   (Sometimes I'm Discouraged) **15 minutes**

6. A. Discuss some of the reasons why governments levy taxes or grant tax advantages.

B. Determine which of the reasons seem to be most important in analyzing six specific examples of deductions, credits, or exemptions.

(Analyzing Tax Policy) **40 minutes**

7. A. Use tables to analyze marginal costs and benefits of reducing pollution.

B. Analyze three policies for pollution reduction to determine which is the most efficient from the standpoint of social policy.

(Taxes and Pollution) **40 minutes**

ARE WE ENCOURAGED TO BUY?

(Time: 10 minutes)

Objective 1:

A. Discuss the effects that tax policy may have on the consumption of selected goods.

B. Review Teacher's Guide activity recommended for use before showing Program Two.

Materials:

Chalkboard or transparency; Teacher's Guide for Program Two

Description:

This activity introduces participants to the overall theme: Taxes Influence Behavior. By looking at three experiences common to adults, participants will easily see that taxes on some goods lead to higher prices while tax incentives on other goods lead to lower prices.

Start with the following explanation: This program shows that tax policy can be used to encourage or discourage the consumption and production of different goods and services. If something is taxed, it almost always becomes more expensive, so less is usually produced and sold. If individuals' taxes are reduced when they buy some specified product--for example, an energy-saving device--more of that product will usually be produced and sold.

List the following products on the chalkboard or a transparency: new home, pack of cigarettes, gallon of gasoline. Ask: What effect do tax policies in the United States have on these products? Then

Then lead a discussion of this question. The discussion should help participants understand that current tax policy encourages home ownership by permitting deductions for mortgage interest costs and local real estate taxes, and discourages purchases of tobacco products and gasoline by imposing excise taxes on these products, which increases their cost to buyers. (Participants may be unaware of the specific tax provisions that apply to the three products. If this is the case, provide a brief description.)

Discuss together the examples in the "Before the Program" activity in the Teacher's Guide. Then ask participants to watch the film for examples of tax policies which encourage or discourage production or consumption.

TAXES INFLUENCE BEHAVIOR

(Time: 20 minutes)

Objective 2:

View and discuss "Taxes Influence Behavior."

Materials:

Tax Whys Program Two, "Taxes Influence Behavior" and appropriate equipment for viewing.

Description:

After they view the program, ask participants to list all instances in the film that illustrate the influence of tax policy on behavior, for example, buying domestic rather than imported perfume, deciding to start a business, deciding where to locate the business and what equipment to buy, determining how much money to borrow (or lend), calculating how many more doughnuts would be sold if there were no sales tax on them, determining how payroll and income taxes affect peoples' willingness to take jobs and employers' incentive to hire workers, the effect of child-care credits on the demand for babysitters (and the supply of sitters), travel and other deductible business expenses, etc..

YOU'RE IN CONGRESS

(Time: 40 minutes)

Objective 3:

Complete and discuss the Student Handout provided in the Teacher's Guide for Program Two.

Materials:

Handout 2-3

Description:

Participants will be asked many questions by their students when the latter begin to complete the Student Handout for Program Two in the Teacher's Guide. It will be beneficial for the participants to have engaged in the activity beforehand.

Distribute Handout 2-3 and ask participants to form small groups to work together to fill it in. Allow ten minutes for group work. One person from each group should then be selected to make a convincing three to five minute tax policy address that justifies the group's answers.

After the tax policy addresses, discuss the various viewpoints and ask participants if they heard arguments which would alter their original decisions.

HANDOUT 2-3

TAX POLICY SIMULATION

Suppose you have been elected to the U.S. House of Representatives and you want to "make a name for yourself." Look over the list of products and activities below. Decide which one of the following three policies the government should apply to each item: (1) tax in order to discourage production and consumption; (2) encourage by providing tax reductions; (3) leave alone--neither tax nor subsidize. Then give reasons for your choice.

Product/Activity	Discourage, Encourage, or Leave Alone	Reasons for Your Choice
(1) Private housing		
(2) Computer		
(3) Alcoholic beverages		
(4) Personal savings		
(5) Business investment		
(6) Automobiles		
(7) Gasoline		
(8) Educational services		
(9) Electricity		
(10) Clothing		
(11) Donations to charity		
(12) Credit card services		

TAX INCENTIVES

(Time: 30 minutes)

Objective 4:

Determine the incentive effects of specified tax breaks and decide who might support each tax incentive.

Material:

Handout 2-4

Description:

Federal income tax deductions, exemptions, exclusions, and tax credits all encourage certain types of economic activity. Participants should focus on how such tax policies can benefit individual taxpayers as well as society as a whole.

Point out that the federal income tax law permits deductions, exemptions, exclusions, and tax credits that reduce the tax liability of eligible individuals and businesses. Define the terms deduction, exemption, exclusion, and tax credit. Explain that some of these tax breaks provide incentives to taxpayers to engage in certain kinds of economic activity; that is, the breaks influence taxpayers' economic behavior. For example, the deduction of interest on personal debt--particularly on mortgage interest--and the federal deduction for local property taxes encourage home buying and ownership.

Tax breaks also influence the economic behavior of people whose own economic activities depend on the economic behavior of the taxpayers directly affected. For example, the mortgage interest deduction presumably increases the activities of those who provide

the goods and services used to build, sell, and service owner-occupied housing. Furthermore, some of those increases may come at the expense of the provision of rental housing.

Distribute a copy of Handout 2-4 to each participant. Ask participants to read the comment and directions and then complete the worksheet. After 15-20 minutes, conduct a discussion of the responses. Expect differences of opinion among the participants, especially in the lists of possible supporters of the tax break indicated (third column of the handout).

Possible Responses to Handout 2-4

(1) Mortgage interest payments on owner-occupied home (deduction)

Incentive effect: Encourages home ownership in preference to renting

Possible supporters: Present and would-be homeowners; financial institutions supplying mortgage loans; home construction companies and their employees

(2) Property tax payment on owner-occupied home (deduction)

Incentive effect: Encourages home ownership

Possible supporters: Present and would-be homeowners; home construction companies and their employees

(3) Charitable contributions (deduction)

Incentive effect: Encourages contributions to nonprofit organizations, such as educational institutions, hospitals,

religious organizations, nonpolitical special-interest associations

Possible supporters: Nonprofit organizations and those who favor their purposes

(4) Interest payments on consumer installment loans (deduction)

Incentive effect: Encourages consumers to buy goods and services on credit, which spreads payment of the total price over a period of time while allowing prompt use of the product

Possible supporters: Businesses that sell goods or services on credit; taxpayers who use credit to buy personal goods and services rather than paying for them in a single lump sum

(5) Child care (credit)

Incentive effect: Encourages parents to enter the job market, since the credit reduces the net cost of child care

Possible supporters: One-parent families; two-parent families in which both parents work or would wish to; providers of child care services (baby sitters, child care employment agencies, day care services)

(6) Residential energy-saving devices (credit)

Incentive effect: Encourages purchase of energy saving equipment and materials as well as related activities such as energy "audits" (Audits may be available from local utility companies without charge, and are often the first step a homeowner takes before installing equipment or making other energy-saving purchases)

Possible supporters: Taxpayers who have or might intend to purchase energy-saving equipment or materials; businesses that produce or market energy-saving goods or services

(7) Preferential treatment for long-term capital gains

Incentive effect: Encourages investors to retain ownership of their assets for more than one year

Possible supporters: Investors; firms that sell securities, real estate, and other types of assets appropriate for long-term investment

(8) Interest receipts on obligations--primarily bonds--of state and local governments (exemption)

Incentive effect: Promotes investment in state and local bonds and their other debt instruments

Possible supporters: State and local governments, since they can secure loans at below-market rates because of the tax advantage, which reduces their outlays; taxpayers in high tax brackets (the higher an investor's potential tax bracket, the more advantageous tax-exempt securities are)

(9) IRA (Individual Retirement Account) (exemption)

Incentive effect: Encourages inviduals to invest part of their savings in an IRA plan rather than in other instruments or in an ordinary savings account

Possible supporters: Middle-income taxpayers; financial institutions eligible to offer IRAs

HANDOUT 2-4

ANALYSIS OF FEDERAL INCOME TAX REDUCTIONS

Comment:

The federal income tax law provides for deductions, exemptions, and exclusions from taxable income as well as tax credits (subtractions from the amount of tax owed). All these tax reductions lower the amount of taxes that eligible individuals and businesses owe the government. One purpose tax reductions serve is to encourage certain types of economic activity.

Directions:

In the appropriate space on the following worksheet, briefly describe the behavior each tax break encourages and list groups or individuals who would favor each break.

...handout/continued/...

Handout 2-4 (continued)

WORKSHEET FOR ANALYSIS OF FEDERAL INCOME TAX REDUCTIONS

Tax Break	Incentive Effect	Possible Supporters of the Tax Break
(1) Mortgage interest payments on owner-occupied home (deduction)		
(2) Property tax payment on owner-occupied home (deduction)		
(3) Charitable contributions (deduction)		
(4) Interest payments on consumer installment loans (deduction)		
(5) Child care (credit)		
(6) Residential energy-saving devices (credit)		
(7) Preferential treatment for long-term capital gains		
(8) Interest receipts on state and local bonds (exemption)		
(9) IRA (Individual Retirement Account) (exemption)		

SOMETIMES I'M DISCOURAGED

(Time: 15 minutes)

Objective 5:

A. Give reasons why taxes are sometimes used to discourage behavior.

B. Give examples of ways in which the sales, property, and income taxes can discourage economic activity.

Description:

Due to negative externalities and the desire to protect our society, taxes are imposed to discourage certain behavior. Sometimes, however, taxes discourage the behavior simply because taxes are needed to finance the cost of government programs. This activity centers on excise, penalty, sales, property, and income taxes and their disincentive effects.

Begin by explaining that the purpose of some taxes is to discourage certain types of economic behavior by increasing their cost or their price. Examples include:

a. So-called sin taxes (excise taxes) on items society deems harmful, such as cigarettes and alcoholic beverages.

b. Protective tariffs (excise taxes) on imported goods in order to discourage consumer buying of certain imports. (In the United States, the usual purpose of such excise taxes is to protect domestic manufacturers of the product from the competition of foreign suppliers of the same goods.)

c. Penalty taxes to discourage negative spillover effects (negative externalities). Explain that negative spillover

effects occur when people other than the direct producers or consumers of a good or service are adversely affected by its production or use. Taxes may be used to limit the production of goods with such adverse "third-party effects" by increasing the production costs and hence the selling prices of the undesirable items.

A case in point is the effluent tax on pollution created by various manufacturing facilities. Pollution is a negative spillover because some or all of its costs (such as increased illness) fall on those who are not involved in the production or the consumption of the goods being produced. Requiring the producer to pay a tax on the pollutants it generates increases the producer's production costs. These costs are generally passed on to consumers in the form of higher prices, which can have the effect of reducing demand and, hence, of lowering production. Summarize by pointing out that all taxes have the inherent property of discouraging people from engaging in certain kinds of economic behavior.

Next, lead participants in a short discussion of the disincentives associated with the sales tax, the real property tax, and the federal income tax. Then have participants briefly relate their personal experience with the disincentive effect of these taxes. Conclude by

pointing out again that all taxes affect behavior, but that tax revenues are necessary to support government.

Possible Discussion Highlights

Sales tax. Those who live near the state's borders in a state that imposes a high sales tax compared to neighboring states may choose to buy some items (especially expensive ones) in an adjacent state with a lower sales tax.

Real property tax on residential housing. Potential buyers may be dissuaded from buying property in a community because that community's property taxes are higher than on comparable property in nearby communities.

The possibility of incurring a higher property tax may discourage some families from "trading up" to a more expensive residence than the one they now own.

Property taxes may also discourage some owners from adding improvements to their property if that would raise its assessed valuation and, hence, the amount of property tax that must be paid. (Assessed value is the property value the local government places on property for purposes of calculating the tax owed.)

Federal income tax. If income taxes go up, people may buy or save less. The progressive structure of the federal income tax may also dissuade some well-to-do taxpayers from endeavoring to earn as much money as they can. The decision to work less depends to a great extent on how the taxpayer analyzes the trade-off between work and

leisure. If leisure time is valued more highly than the net--or after tax--return of the additional work, the taxpayer may choose to forgo additional income.

ANALYZING TAX POLICY

(Time: 40 minutes)

Objective 6:

A. Discuss some of the reasons why governments levy taxes or grant tax advantages.

B. Determine which of the reasons seem to be most important in analyzing six specific examples of deductions, credits, or exemptions.

Materials:

Handout 2-6; Visuals 2-6A, 2-6B, 2-6C, 2-6D, 2-6E, 2-6F and overhead projector; four packs of 3"x5" index cards, each pack a different color. Label all the cards in the first color "Merit"; label all cards in the second color "Externalities"; label all cards in the third color, "Macro"; and label all cards in the fourth color, "Special Interest." Prepare as many cards as needed to provide one card of each color for each participant.

Description:

This activity will generate thinking and differences of opinion. It is open-ended with no right or wrong answers, and it enables participants to apply their accumulated understanding of tax policies.

Distribute Handout 2-6 which gives four reasons why governments may levy taxes or grant tax advantages on certain goods and services.

Using the examples in the handout, explain each reason to the class. Also explain that other considerations carry weight in the determination of tax policy, for example, ease of collection.

Distribute one set of the prepared 3"x5" cards to each participant. Explain that you will project a sequence of six visuals, and that each visual presents a specific tax exemption, deduction, or credit allowed in computing the federal personal income tax. (The examples in the visuals are from the IRS list, "Adjustments to Income", that appears in the 1983 Income Tax Form 1040 Instruction Booklet.)

Tell participants to read each visual silently, and then decide, without discussion with anyone else, whether the exemption, deduction, or credit shown is primarily an example of the use of tax policy: (a) to provide for merit goods; (b) to adjust for externalities; (c) to promote a specific macroeconomic goal; or (d) reflects the influence of a special-interest group.

Project the visuals. After showing each one, allow a minute or two for participants to decide which category the example in the visual primarily represents, using Handout 2-6 as a guide. Then ask them to hold up the appropriate card to express their decision. (Make sure everyone votes at the same time and without discussing or revealing votes in advance.) Call on a few people to explain their choices. Then compare the reasoning of participants who made different choices with respect to the same visual.

NOTE: The activity should generate considerable discussion, since, as already pointed out, many reasons usually underlie the basis of any specific tax policies. If time permits, you can expand this activity by considering additional examples (see "Adjustments to Personal Income" in the current Income Tax Form 1040 instruction booklet for additional exemptions, credits, or deductions).

Suggested Responses

Don't try to prove there is one primary motive for each of the tax policies, although there may be a strong consensus in your workshop group on some. In fact, each policy reflects more than one motive, though in varying degree, and participants may offer responses that are correct, although those reasons do not appear below. Use the discussion to determine both if any general consensus does exist, and to show why different points of view are tenable.

Visual 2-6A: Home Mortgage Interest Deduction

Merit good. The ability to own one's own home is believed by many to greatly enhance the overall quality of life in the United States.

Externality. Because homeowners are likely to look after property more carefully than those who rent, and because improvements made to a house can help improve an entire neighborhood, the deduction recognizes the social value of such benefits.

Special Interest. Builders, contractors and their suppliers; bankers, savings and loan associations, and other financial

institutions; realtors. These are some of the groups that benefit from the spur to housing sales that this deduction generates.

Visual 2-6B: Deductions for Contributions to Qualified Organizations (i.e., Charitable, Religious, Educational, etc.)

Merit good. Because donors feel obligated to contribute to the betterment of society, many legally eligible activities would certainly receive private support even without the incentive provided by the deduction. With the allowable deductions, these activities receive even more or larger contributions.

Externalities. Many nonprofit activities, e.g., education, generate benefits to society as a whole, not just to those who provide or consume such services. Other examples of such spillover benefits include basic reasearch in science, technology, and health.

Special Interest. People who are employed by charitable and other nonprofit agencies have strong incentives to promote the continuance and expansion of these deductions.

Visual 2-6C: Child Care Credits

Merit good. Society benefits when the children of working women or families receive care that the parent(s) could not afford without tax credits.

Macroeconomic Effect. Reducing child-care costs can help increase the size of the nation's labor force.

Special Interest. A parent or parents who would otherwise forgo taking a job.

Visual 2-6D: Credit for Energy-Saving Devices

Macroeconomic Effect. These credits reduce national dependence on possible unreliable supplies of foreign energy, and thus help protect the economy against episodes of inflation and unemployment.

Externality. Inflation and unemployment affect all citizens, not merely those who produce energy and energy products. A reduction in the use of energy may reduce other external costs such as the amount of pollution.

Special Interest. Those who work for industries that provide products eligible for energy-saving tax credits have clear incentives to support these subsidies.

Visual 2-6E: Personal Exemptions for the Blind

Merit good. Since the blind often have very low incomes because they are unable or are perceived as unable to perform certain kinds of work that pay well, many citizens support these exemptions as a kind of grant or transfer of income.

Special Interest. The blind are likely to support these exemptions strongly in order to increase their own after-tax incomes. Note that other groups which are also prone to earn low incomes, e.g., paraplegics, do not receive such exemptions.

Visual 2-6F: Exemptions for Individual Retirement Accounts (IRAs)

Macroeconomic Effect. Higher rates of savings which help increase the growth of U.S. investment and productivity.

Special interest. IRAs provide an important means of reducing the tax liability of middle-income citizens, particularly those who are not eligible to claim more than the standard deduction. The policy also benefits banks, brokerage houses, insurance companies, and other financial organizations to which people channel their IRAs.

HANDOUT 2-6

RATIONALES FOR SETTING TAX POLICY

Merit Goods

Explanation: Certain activities are taxed or given tax advantages because society, acting through its elected representatives, deems the activities to be beneficial or detrimental to the best interests of the nation on moral, esthetic, or other noneconomic grounds. Even when an apparent broad consensus leads to the adoption of such policies, the policies may be controversial and objectionable to some people or groups.

Example: Preferential treatment of long-term capital gains from the sale of a private residence in order to encourage home ownership.

Externalities

Explanation: Externalities--or spillovers--occur when people other than the direct producers or consumers of a good are adversely affected (a negative externality) or favorably affected (a positive externality) by its production or use. Since the costs (or benefits) of the spillover are not incorporated in production costs, market prices will not sufficiently fulfill their signaling function of relaying information regarding the relative scarcity or abundance of goods and services to producers and consumers. Firms will overproduce goods and services that engender negative externalities

...(continued)...

and underproduce goods and services that engender positive externalities. Taxes may be used to limit output of products with negative spillover effects since they make such products more expensive to consumers and thus reduce the demand for them. Similarly, tax advantages may be used to encourage an increase in the output of products with positive spillover effects since they make such products less expensive to consumers and thus increase the demand for them.

Examples: Tax policy to discourage production: effluent tax on activities that cause pollution. Tax policy to increase production: deduction from taxable income of contributions made to eligible educational organizations in order to increase the educational level --and hence the productive abilities--of the nation's population.

Macroeconomics Stabilization Policies

Explanations: Tax policy can be used to promote employment, stable prices, and sustainable rates of economic growth by either restriction spending (and thereby encouraging saving) or by encouraging particular kinds of spending.

Examples: Specific taxes that restrict spending: sales taxes; taxes on business inventories. Specific tax that stimulates spending: the investment tax credit.

...(continued)...

Special-Interest Effects

Explanation: Special-interest groups are sometimes able to secure tax benefits from a legislature. The benefits are usually for a relatively small group, but the costs are paid by all taxpayers. When this occurs, each taxpayer is so little affected that it is not worthwhile to fight the special interest group.

Examples are controversial and often difficult to justify or to criticize. Certain agricultural subsidies, tariffs, credits for exporting.

DEDUCTION

VISUAL 2-6A

INTEREST EXPENSES ON HOME MORTGAGES ARE DEDUCTIBLE.

VISUAL 2-6B

CONTRIBUTIONS TO RELIGIOUS, CHARITABLE, EDUCATIONAL, SCIENTIFIC, AND LITERARY ORGANIZATIONS ARE DEDUCTIBLE.

VISUAL 2-6C

CREDITS ARE ALLOWED FOR PAYMENTS MADE FOR CHILD CARE WHILE YOU (AND YOUR SPOUSE, IF YOU ARE MARRIED) WORK.

VISUAL 2-6D

CREDITS ARE ALLOWED FOR INSTALLING ENERGY-SAVING DEVICES IN YOUR HOME.

VISUAL 2-6E

YOU ARE ALLOWED ONE EXEMPTION FOR YOURSELF--

TWO EXEMPTIONS IF YOU ARE BLIND.

VISUAL 2-6F

YOU MAY SUBTRACT FROM TAXABLE INCOME PAYMENTS MADE TO INDIVIDUAL RETIREMENT ACCOUNTS (IRAs).

TAXES AND POLLUTION

(Time: 40 minutes)

Objective 7:

A. Use tables to analyze marginal costs and benefits of reducing pollution.

B. Analyze three policies for pollution reduction to determine

B. which is the most efficient from the standpoint of social policy.

Materials:

Handout 2-7; Chalkboard or transparency of Exhibit 2-7

Description:

This activity is especially designed for teachers of a high school economics course or for mathematics, science and business teachers of college-bound students. Few members of the general public understand that the best policy for dealing with pollution may not be to eradicate it entirely no matter what the cost. The use of hypothetical numerical data will enable participants to study pollution in an objective way. They will analyze marginal costs and benefits to arrive at the optimal tax policy in regard to pollution abatement in one industry.

Distribute Handout 2-7 and explain to participants that pollution is an example of an economic activity that results in "spillover costs." These costs include, for example, illness, contamination, and structural damage, and affect people other than the producers or consumers of the product that generated the

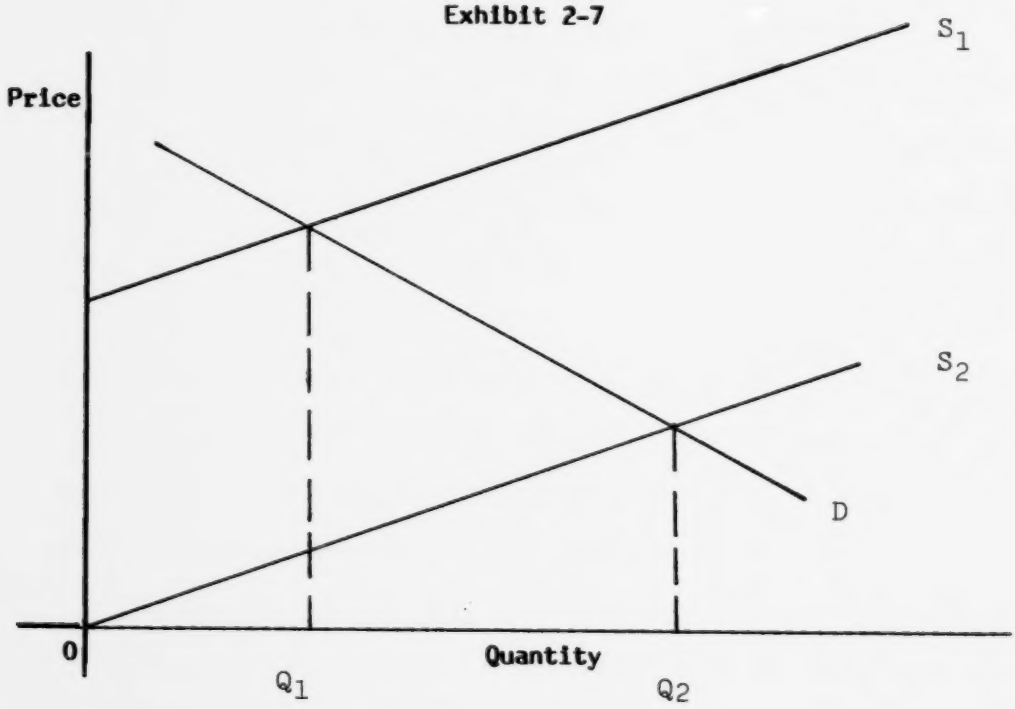
pollution. The producing firm does not add these costs to its costs of production, causing the product price to be artificially low.

(NOTE: If the group is familiar with the concept of economic efficiency, use the chart in Exhibit 2-7 on the next page to illustrate the meaning of overproduction as it relates to the effects of externality. Project the chart or copy it on the chalkboard. Explain that D represents society's demand for the product. S_1 represents the optimal supply schedule. The schedule takes account of all production costs, including spillover costs. Hence, P_1, the market-clearing price, is also the optimal price. Q_1, the quantity supplied at P_1, represents the most efficient amount of resources allocated to the product. When spillover costs are not included in production costs, prices at every quantity supplied are below those along S_1. In efficiency terms, overproduction results. S_2 depicts the situation: the market clearing price for S_2 is P_2, and the quantity supplied at P_2 is greater than the quantity supplied at the optimal price of P_1.)

For example, a plant may dispose of its waste products by dumping them in a nearby river, thus polluting the waterway and the local water supply. In the absence of controls, the community as a whole bears the costs resulting from contamination of the water

supply, not merely those who draw profits from the business, work for the plant, or buy its product. Government agencies can use tax policy, as well as other means, to make the firm include these external costs of the pollution in the calculation of total production costs.

Exhibit 2-7



However, reducing pollution itself entails costs--direct ones borne by the facility in complying with the law, and possible additional costs that arise if, say, the plant reduces employment to pay the higher costs or because increasing the price of the product cuts demand for it. In setting pollution control policy, it is necessary for a public policymaker to weigh the benefits--the money

value of the gains from a lower level of pollution--against the costs.

Ask participants to turn to the tables in the handout. Explain that the tables present hypothetical data concerning pollution control for three plants located in a certain industrial area.

Table A shows the expected marginal benefits of each 10 percent reduction in the initial level of pollution in the area; e.g., $3.60 million is the amount of additional social benefit resulting from reducing pollution from 60 percent of the initial level to 50 percent of the initial level, not the total benefit of the entire 50 percent cut in pollution.

The data assume that the marginal benefits of reducing pollution in these increments would initially be large, but that each succeeding reduction in pollution would yield a lower benefit than the one before. Total benefits are calculated by adding up all the marginal benefits. In Table A, the total benefit of reducing pollution to 80 percent of the initial level is $9.10 million. The total social cost of the remaining pollution is $20.40 million (= $0.10 + $1.00 + ... + $4.30).

Ask participants to look at the last column of Table A. The assumption there is that the three manufacturing plants in the area

are each about the same size and produce about the same level of output and of pollution. Thus, the expected benefits for any one plant will be about one-third of the total expected benefits shown in Table A.

Have participants turn to Table B. Explain that the assumption there is that while each plant is about the same size, plant A was built five years ago, plant B about ten years ago, and plant C about twenty years ago. Hence, as shown, the direct costs of reducing pollution are different at each plant, since it will be easier--less costly--to install pollution control equipment at the newer sites than at the older ones.

Instruct participants to answer the first five analysis questions in Handout 2-7. Allow 10 minutes, then review the answers with the group. Conclude by asking participants to read analysis question 6. After a few minutes lead a brief discussion of the question.

Suggested Responses to Analysis Questions in Handout 2-7

(1) In Tables A and B, are the marginal benefits for each 10% reduction in pollution decreasing or increasing? (Decreasing)

(2) What is the lowest level of pollution for which the marginal costs of reducing pollution are less than the marginal benefits

for each of the plants? (Plant A, 40%; Plant B, 60%; Plant C, 80%)

(3) If each plant achieved its lowest level of pollution reduction consistent with the cost-benefit analysis indicated by your answers to question 2, what would be the total percentage reduction in pollution for the whole area? [Answer: (1/3 x 4/10) + (1/3 x 6/10) + (1/3 x 8/10) = 60%]

(4) What would happen if the plants were not encouraged or required to reduce their pollution? (They would continue to pollute. No one owns the environment, and it is difficult and expensive for individuals to recover damages suffered from pollution. To reduce pollution, the plants would have to incur higher production costs and lower profits).

(5) Suppose the government decided to levy a tax of $1 million for each 10% fraction of the initial level of pollution still remaining. Disregarding social benefits, at what level of pollution would the plant managements consider it worthwhile to halt pollution reduction and pay the tax rather than incur more expenses for cutting pollution? (At the lowest level of pollution at which the added cost of reducing pollution is less than the additional tax penalty, i.e., for Plant A, at 40%; Plant B, 60%; Plant C, 80%. Beyond these points, decreasing pollution an additional 10% of the initial level costs more than

the additional tax penalty.)

(6) Suppose you are a government policymaker. You are to consider three options to reduce pollution in this area to 60% of the current level:

Policy A - Establish a schedule of effluent taxes (see Table C), reflecting benefits forgone in this community if pollution continues at the different levels shown;

Policy B - Require each of the three plants to reduce pollution to the 60% level;

Policy C - Require an across-the-board reduction of pollution to 60% of the initial level of pollution and impose a tax of $4.02 million on each plant, representing the "costs" of this level of pollution, as calculated from Table C.

The cost of each plan to each of the three firms appears in Table D. As an example of the use of Tables B and C to calculate the values shown in Table D, note that Plant A finds it cheaper to reduce pollution from 100% to 90% by spending $0.10 million on pollution control rather than pay the marginal tax of $1.53 million. However, it will be cheaper for the firm to pay the marginal tax of $0.83 million and leave pollution at the 40% level than to spend the $1.25 million required to reduce pollution from 40% to 50% of the orginal

level.

Which plan is the most efficient from the standpoint of social policy? Point out that policy B is the least expensive to all the firms. However, that policy still allows the firms to shift substantial pollution costs onto the community. They pay nothing to compensate for the pollution damage, and are not forced to include the remaining costs of pollution as part of total costs of production.

Policies A and C both force the firms to "internalize" the costs associated with the pollution released by the plants. Each increment of pollution released is taxed according to its estimated social costs. Policy A, however, is the more efficient; it achieves a higher overall reduction in pollution and collects appropriate tax revenues at a total cost that is more than $1 million lower than for Policy C. The reason is that Policy A allows the plants to cut pollution to the lowest level consistent with each plant's marginal cost-benefit analysis, whereas Policy C treats each plant the same. Note, however, that Plant C is better off under Policy C, and that Plant B is indifferent between the two policies.

HANDOUT 2-7

USING TAX POLICY TO CONTROL POLLUTION

Table A. Marginal Benefits of Successive 10% Reductions in Initial Pollution Level
(dollars in millions)

% of Initital Pollution Levels	Benefits	
	Total	Per Plant
100%	-	-
90	$4.60	$1.53
80	4.50	1.50
70	4.30	1.43
60	4.00	1.33
50	3.60	1.20
40	3.10	1.03
30	2.50	0.83
20	1.80	0.60
10	1.00	0.33
0	0.10	0.03

Table B. Marginal Cost of 10% Reductions in Initial Pollution Level in Each Plant
(dollars in millions)

% of Initial Pollution Levels	Plant A	Plant B	Plant C
100%	-	-	-
90	$ 0.10	$ 0.20	$ 0.40
80	0.20	0.40	0.80
70	0.32	0.65	1.45
60	0.48	0.95	1.90
50	0.65	1.30	2.60
40	0.90	1.80	3.60
30	1.25	2.50	5.00
20	1.70	3.40	6.80
10	2.40	4.30	8.60
0	3.30	6.60	13.20

.../handout continued/...

Table C. Effluent Tax Schedules
(dollars in millions)

% of Initial Pollution Remaining at Each Plant	Effluent Tax for Each Plant	Marginal Tax*
100%	$ 9.81	-
90	8.28	$ 1.53
80	6.78	1.50
70	5.35	1.43
60	4.02	1.33
50	2.82	1.20
40	1.79	1.03
30	0.96	0.83
20	0.36	0.60
10	0.03	0.33
0	-	0.03

* That is, the additional tax to be charged each plant because it has not reduced pollution by one more 10% increment. Note that this column is identical to the last column in Table A.

.../handout continued/...

Handout 2-7 (continued)

Table D. COSTS OF ALTERNATIVE PROGRAMS TO REACH 60 PERCENT POLLUTION LEVEL
(dollars in millions)

	Policy A Effluent Tax	Policy B 60% Regulation	Policy C 60% Regulation Plus Across-the-Board Pollution Tax
Plant A			
Pollution Control	2.65	1.10	1.10
Effluent Tax	1.79	--	4.02
Total	4.44	1.10	5.12
Plant B			
Pollution Control	2.20	2.20	2.20
Effluent Tax	4.02	--	4.02
Total	6.22	2.20	6.22
Plant C			
Pollution Control	2.65	4.40	4.55
Effluent Tax	6.78	--	4.02
Total	9.43	4.40	8.57
Total: All Plants			
Pollution Control	7.50	7.70	7.85
Effluent Tax	12.59	--	12.06
Total	20.09	7.70	19.91

.../handout continued/...

QUESTIONS FOR ANALYSIS

(1) In Tables A and B, are the marginal benefits for each 10% reduction in pollution decreasing or increasing?

(2) What is the lowest level of pollution for which the marginal costs of reducing pollution are less than the marginal benefits to each of the plants?

(3) If each plant achieved its lowest level of pollution reduction consistent with the cost-benefit analysis indicated by your answers to question 2, what would be the total percentage reduction in pollution for the whole area?

(4) What would happen if the plants were not encouraged or required to reduce their pollution?

(5) Suppose the government decided to levy a tax of $1 million for each 10% fraction of the initial level of pollution still remaining. Disregarding social benefits, at what level of pollution would the plant managements consider it worthwhile to halt pollution reduction and pay the tax rather than incur more expenses for cutting pollution?

(6) Suppose you are a government policymaker. You are to consider three options to reduce pollution in this area to 60% of the current level:

Policy A - Establish a schedule of effluent taxes (see Table C), reflecting benefits forgone in this community if pollution continues at the

different levels shown;

Policy B - Require each of the three plants to reduce pollution to the 60% level;

Policy C - Require an across-the-board reduction of pollution to 60% of the initial level of pollution and impose a tax of $4.02 million on each plant, representing the "costs" of this level of pollution, as calculated from Table C.

The cost of each plan to each of the three firms appears in Table D. As an example of the use of Tables B and C to calculate the values shown in Table D, note that Plant A finds it cheaper to reduce pollution from 100% to 90% by spending $0.10 million on pollution control rather than pay the marginal tax of $1.53 million. However, it will be cheaper for the firm to pay the marginal tax of $0.83 million and leave pollution at the 40% level than to spend the $1.25 million required to reduce pollution from 40% to 50% of the original level.

Which plan is most efficient from the standpoint of social policy?

MODULE 3

TAXES INVOLVE CONFLICTING GOALS

Participant Objectives:

1. List examples of deductions and exemptions and explain their costs and benefits to the tax system.

   (Lowering Taxable Income) **20 minutes**

2. A. View and briefly discuss Program Three, "Taxes Involve Conflicting Goals."

   B. Suggest parts of the curriculum in which the program can be used.

   (Taxes Involve Conflicting Goals) **30 minutes**

3. Determine the largest "tax expenditures" and explain their costs and benefits.

   (What Are Tax Expenditures?) **45 minutes**

4. Discuss the effects of exemptions and deductions on income taxes and on horizontal equity.

   (Deductions and Equity, I) **30 minutes**

5. A. Define "vertical equity."

   B. Discuss how deductions and exemptions affect the progressivity of federal income taxes.

   (Deductions and Equity, II) **20 minutes**

LOWERING TAXABLE INCOME

(Time: 20 minutes)

Objective 1:

List examples of deductions and exemptions and explain their costs and benefits to the tax system.

Materials:

Copies of the Income Tax 1040 long form or copies of the most recent edition of Understanding Taxes; chalkboard or blank transparency and overhead.

Description:

This activity introduces participants to the subject of deductions and exemptions.

Distribute Income Tax 1040 long forms or have participants use the form reproduced in Understanding Taxes. Ask participants to examine the form with a view to finding how individuals may lower their taxable incomes (i.e., income subject to tax). List the suggestions on the chalkboard or on a blank transparency. Examples include dividend exclusion, interest income on All-Savers accounts, IRA deduction, state and local taxes, interest expenses, charitable contributions, etc.. (It is not necessary for participants to list all of the deductions, exemptions and exclusions; a more extensive analysis takes place under Objective 3).

After participants have compiled a list of ten or more items, ask them why these deductions, benefits, and exclusions are granted to those who take them.

Because they lower taxes, exemptions, deductions and exclusions are, in effect, subsidies for certain individuals or activities.

Subsidies encourage certain activities. For example, since the payment of interest on mortgages makes borrowing money for a home less expensive, more people are able to buy their own homes or are able to buy better houses than they could otherwise afford. Look for similar effects of other exemptions and deductions. (Some deductions help certain classes of individuals, i.e., people 65 and older, and the blind.)

Ask participants if there is anything given up by taxpayers because of the availability of exemptions, deductions, and exclusions. On the one hand, many taxpayers benefit because their taxes are reduced. On the other hand, taxpayers as a group may suffer a loss. If, collectively, they pay fewer taxes, the result may be (a) a reduction in the provision of government goods and services, (b) a subsequent rise in income tax rates, (c) the levying of an increase in other taxes, (d) a federal budget deficit or an increased deficit, or (e) some combination of all the foregoing.

NOTE: If the activity occurs immediately before Program Three, "Taxes Involve Conflicting Goals" is shown, ask participants to look for the costs and benefits of the specific deductions and exemptions described in the film.

TAXES INVOLVE CONFLICTING GOALS

(Time: 30 minutes)

Objective 2:

A. View and briefly discuss Program Three, "Taxes Involve Conflicting Goals."

B. Suggest parts of the curriculum in which the program can be used.

Materials:

Program Three, "Taxes Involve Conflicting Goals" and appropriate equipment for viewing.

Description:

After participants have viewed the film ask them to explain what is meant by the title, "Taxes Involve Conflicting Goals."

Have participants describe and discuss the trade-offs mentioned in the film. Be sure to ask what was gained and what was lost in each case. Some examples of the trade-offs are: (a) reduced taxes vs. less highway spending; (b) lower local property tax receipts vs. lower rents for students; (c) smaller tax receipts due to greater deductions vs. larger nonprofit educational organizations; (d) smaller tax receipts because of investment tax credits vs. the expansion of investment. In other words, there is a cost to each of the tax decisions mentioned.

Have participants suggest parts of the curriculum (i.e., courses, units of study, topics) in which the film can be used.

WHAT ARE TAX EXPENDITURES?

(Time: 45 minutes)

Objective 3:

Determine the largest "tax expenditures" and explain their costs and benefits.

Materials:

Handout 3-3 and Handout 3-3A

Description:

This lesson shows participants that there are many tax deductions, exemptions, and exclusions and that they resemble direct spending by government.

Distribute Handout 3-3 and define a tax expenditure. A tax expenditure occurs when taxes are reduced because an individual or a business has received a particular type of income or has made a particular kind of purchase or payment. In effect, the government thereby subsidizes specific activities. For example, in Handout 3-3 the first tax expenditure listed is the exclusion of benefits and allowances to armed forces personnel. In other words, if armed forces personnel were required to count those benefits as taxable income, they would have paid $2,820,000 more in income taxes.

Handout, Part I

Distribute Handout 3-3A and have participants work in groups of four to complete Part I of the handout. After they have completed Part I, have them share their responses. The 12 largest tax expenditures plus some possible beneficiaries are:

1. Tax expenditure: Exclusion of pension contributions and earnings by employer plans.

   Beneficiaries: Employees, financial institutions, and the economy as a whole because of the funds accumulated for capital investments.

2. Tax expenditure: Exclusion of employer contributions for medical insurance premiums and medical care.

   Beneficiaries: Employees, health services industry, and the economy as a whole because the work force is kept healthy.

3. Tax expenditure: Deductibility of mortgage interest on owner-occupied homes.

   Beneficiaries: Homeowners, businesses dependent on home-building, financial institutions that provide mortgages, and possibly society as a whole if homeownership is believed to improve the quality of life in communities.

4. Tax expenditure: Capital gains (other than agriculture, timber, iron ore, and coal).

   Beneficiaries: Those who receive the gains, financial institutions, and the economy as a whole because of the funds accumulated for capital investments or consumer expenditures.

5. Tax expenditure: Deductibility of nonbusiness state and local

taxes other than on owner-occupied homes.

Beneficiaries: Individual taxpayers; state and local government because they can enact higher taxes than if there were no deductibility.

6. Tax expenditure: Accelerated depreciation on equipment other than leased property.

   Beneficiaries: Businesses that buy equipment, businesses that make equipment, financial institutions that provide loans with which to buy equipment and the economy as a whole since new equipment usually increases the productivity of the user.

7. Tax expenditure: Investment credit, other than ESOP's, rehabilitation of structures, energy property, and reforestation expenditures.

   Beneficiaries: Businesses, investors, and the economy as a whole because the investment credit encourages capital investments.

8. Tax expenditures: OASI benefits for retired workers.

   Beneficiaries: Retired workers and their families who receive social security benefits.

9. Tax expenditure: Reduced rates on first $100,000 of corporate income.

   Beneficiaries: Corporations, especially smaller ones, and

stockholders. Leaves more funds to retain in the business, to pay dividends, and for new capital investment, or for all three.

10. Tax expenditure: Deductibility of interest on consumer credit.
Beneficiaries: Consumers who use consumer credit and businesses and banks that extend it. Benefits economy as a whole because it increases effective demand for consumer goods and services which acts to generate more capital investment and jobs.

11. Tax expenditure: Deduction for two-earner married couples.
Beneficiaries: Two-earner married couples. Also encourages both husband and wife to work, which provides more for the economy in general.

12. Tax expenditure: Deductibility of property tax on owner-occupied homes.
Beneficiaries: Homeowners, businesses dependent on home building industry, financial institutions that provide mortgages, and local government units.

Handout, Part II

After discussing answers to Part I of Handout 3-3A, direct the groups to read and answer the discussion questions in Part II. Suggested replies to the questions are:

Question 1: Of the 12 largest tax expenditures, what does each promote; what does each discourage?

TAX EXPENDITURES PROMOTE	TAX EXPENDITURES DISCOURAGE
Homeownership (#3 and #12)	Renting of Housing
Financial security for retirees (#1 and #8)	Dependence of elderly on financial support from children, other members of family, or charitable institutions.
Saving (#4 and #7)	Buying goods and services instead of saving
Investment in new equipment (#6 and #7)	Use of older equipment for a longer period of time
Health of work force (#2)	Delay in use of medical services by individuals
Increased consumer purchases through the use of credit (#10)	Fewer consumer purchases because of the lack of cash
Financial security of state and local governments (#5 and #12)	Double taxation (taxes on taxes paid); lower tax rates at state and local levels
Financial security of smaller corporations (#9)	Lack of capital by smaller corporations
Participation in labor force by both members of a married couple (#11)	A member of a married couple from staying out of labor force

Question 2: Tax expenditures result in fewer taxes with which the government can provide goods and services. For this reason tax expenditures may contribute to a rise in tax rates or new taxes in order to counterbalance the loss of revenue because of tax expenditures, a federal deficit may be incurred or increased in order

to fund the level of government goods and services which are wanted, or the government fails to provide some wanted goods and services. Indicate whether you believe the costs are worth the benefits for each of the twelve major tax expenditures. Why or why not? (Answers will vary.)

Question 3: How is a tax expenditure similar to government spending? An example: (Deducting your mortgage interest paid from your income means that you pay less in taxes. Let us say your taxes therefore decline by $1,000. This decline is similar to paying taxes on the interest while the government gave you $1,000.)

HANDOUT 3-3

TAX EXPENDITURES, BY FUNCTION, FISCAL YEAR 1984[a]
(millions of dollars)

Item	1984
National defense	
Exclusion of benefits and allowances to armed forces personnel	2,820
Exclusion of military disability pensions	160
International affairs	
Exclusion of income earned abroad by U.S. citizens	2,165
Deferral of income of domestic international sales corporations	2,000
Deferral of income of controlled foreign corporations	605
General science, space and technology	
Expensing of research and development expenditures	-1,070
Credit for increasing research activities	1,180
Suspension of regulations relating to allocation under section 861 of research and experimental procedures	110
Energy	
Expensing of exploration and development costs	
Oil and gas	1,710
Other fuels	50
Excess of percentage over cost depletion	
Oil and gas	2,295
Other fuels	790
Capital gains treatment of royalties on coal	295
Exclusion of interest on state and local government industrial development bonds for certain energy facilities	20
Residential energy credits	
Supply incentives	690
Conservation incentives	390
Alternative, conservation and new technology credit	
Supply incentives	255
Conservation incentives	100

Source: Federal Tax Policy, Brookings Institutions, 1983

Handout 3-3 (continued)

Item	1984
Alternative fuel production credit	70
Alcohol fuel credit[b]	5
Energy credit for intercity buses	15
Natural resources and environment	
Expensing of exploration and development costs, nonfuel minerals	100
Excess of percentage over cost depletion, nonfuel minerals	690
Exclusion of interest on state and local government pollution control bonds	1,150
Exclusion of payments in aid of construction of water, sewage, gas, and electric utilities	75
Tax incentives for preservation of historic structures	385
Capital gains treatment of iron ore	40
Capital gains treatment of certain timber income	910
Investment credit and seven-year amortization for reforestation expenditures	40
Agriculture	
Expensing of certain capital outlays	590
Capital gains treatment of certain income	745
Deductibility of patronage dividends and certain other items of cooperatives	1,075
Exclusion of certain agricultural cost-sharing payments	80
Commerce and housing credit	
Dividend and interest exclusion	605
Exclusion of interest on state and local industrial development bonds	2,625
Exemption of credit union income	270
Excess bad debt reserves of financial institutions	1,090
Exclusion of interest on life insurance savings	7,310
Deductibility of interest on consumer credit	10,530
Deductibility of mortgage interest on owner-occupied homes	28,335
Deductibility of property tax on owner-occupied homes	9,645
Exclusion of interest on state and local housing bonds for owner-occupied housing	1,315
Depreciation on rental housing in excess of straight line	820

Handout 3-3 (continued)

Item	1984
Depreciation on buildings other than rental housing in excess of straight line	465
Capital gains (other than agriculture, timber, iron ore, and coal)	23,465
Deferral of capital gains on home sales	2,515
Exclusion of capital gains on home sales for persons aged 55 and over	865
Carryover basis of capital gains at death	3,685
Investment credit, other than for ESOP's, rehabilitation of structures, energy property, and reforestation expenditures	18,325
Safe harbor leasing rules	3,035
Accelerated depreciation on equipment other than leased property	18,620
Amortization of start-up costs	290
Exclusion of interest on certain savings certificates	105
Reinvestment of dividends in public utility stock	670
Reduced rates on first $100,000 of corporate income	14,935
Transportation	
Deferral of tax on shipping companies	40
Exclusion of interest on state and local government for mass transit	15
Community and regional development	
Five-year amortization for housing rehabilitation	70
Investment credit for rehabilitation of structures (other than historic)	460
Education, training, employment, and social services	
Exclusion of interest on state and local student loans bonds	240
Parental personal exemption for students aged 19 or over	945
Exclusion of scholarship and fellowship income	375
Exclusion of employee meals and lodging (other than military)	805
Employer educational assistance	15
Exclusion of contributions to prepaid legal services plans	25
Investment credit for ESOP's	2,405
Deduction for two-earner married couples	10,040

Handout 3-3 (continued)

Item	1984
Deductibility of charitable contributions (education)	805
Deductibility of charitable contributions other than education and health	7,170
Credit for child and dependent care expenses	2,430
Exclusion of employer-provided child care	30
Credit for employment of AFDC recipients and public assistance recipients under work incentive programs	...
General jobs credit	5
Targeted jobs credit	705
Health	
Exclusion of employer contributions for medical insurance premiums and medical care	28,980
Deductibility of medical expenses	2,635
Exclusion of interest on state and local hospital bonds	1,115
Deductibility of charitable contributions (health)	1,185
Tax credit for orphan drug research	25
Income security	
Exclusion of social security benefits	
Disability insurance benefits	1,660
OASI benefits for retired workers	16,800
Benefits for dependents and survivors	3,890
Exclusion of railroad retirement system benefits	725
Exclusion of workmen's compensation benefits	2,105
Exclusion of special benefits for disabled coal miners	165
Exclusion of untaxed unemployment insurance benefits	2,940
Exclusion of disability pay	150
Exclusion of public assistance benefits	430
Net exclusion of pension contributions and earnings	
Employer plans	78,780
Plans for self-employed and others	6,840
Exclusion of other employee benefits	
Premiums on group term life insurance	3,095
Premiums on accident and disability insurance	160
Income of trusts to finance supplementary unemployment benefits	5
Additional exemption for the blind	35
Additional exemption for the elderly	2,420
Tax credit for the elderly	135
Deductibility of casualty losses	520

Handout 3-3 (continued)

Item	1984
Earned-income credit[c]	340
Exclusion of interest on state and local bonds for rental housing	770
Deduction for motor carrier operating rights	115
Deduction for certain adoption expenses	15
Veterans' benefits and services	
Exclusion of veterans' disability compensation	1,835
Exclusion of veterans' pensions	295
Exclusion of GI bill benefits	125
General government	
Credits and deductions for political contributions	295
General-purpose fiscal assistance	
Exclusion of interest on general-purpose state and local debt	9,430
Deductibility of nonbusiness state and local taxes other than on owner-occupied homes	21,755
Tax credit for corporations receiving income from doing business in U.S. possessions	1,830
Interest	
Deferral of interest on savings bonds	500

Source: Special Analyses, Fiscal 1984, pp. G-26-28; and Tax Expenditures, p. 20. All estimates have been rounded to the nearest $5 million.

. Less than $5 million.

a. Outlay equivalent estimates.

b. In addition, the exemption from the excise tax for alcohol fuels results in a reduction of excise tax receipts of $90 million in 1984.

c. The figures in the table indicate the tax subsidies provided by the earned-income tax credit. The effect on outlays is $1,125 million for 1984.

HANDOUT 3-3A

WORKSHEET FOR WHAT ARE TAX EXPENDITURES?

Part I

Instructions: List the twelve largest tax expenditures for the fiscal year 1984 according to Handout 3-3. For each one, state who benefits from the tax expenditures.

Largest Tax Expenditures	Beneficiaries
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

Part II

Answer the two discussion questions which will require analysis of your responses in Part I.

Discussion Questions

1. Of the 12 largest tax expenditures, what does each promote; what does each discourage?

TAX EXPENDITURES PROMOTE

TAX EXPENDITURES DISCOURAGE

2. Tax expenditures result in fewer taxes with which the government can provide goods and services. For this reason, tax expenditures may contribute to a rise in tax rates or new taxes in order to counterbalance the loss of revenue because of tax expenditures, a federal deficit may be incurred or increased in order to fund the level of government goods and services which are wanted, or the government fails to provide some wanted goods and services. Indicate whether you believe the costs are worth the benefits for each of the twelve major tax expenditures. Why or why not?
3. How is a tax expenditure similar to spending by government?

DEDUCTIONS AND EQUITY, I

(Time: 30 minutes)

Objective 4:

Discuss the effects of exemptions and deductions on income taxes and on horizontal equity.

Materials:

Handout 3-4; tax table from the instruction booklet for Income Tax Form 1040 or from the current edition of Understanding Taxes.

Description:

Distribute Handout 3-4 and the tax table. Tell participants to use the data tax tables and the hypothetical income figures provided in the handout to calculate the taxes owed by the Smith family and the Jones family. Based on the tax table for payments on 1983 income, the answers are as follows:

	Smith Family	Jones Family
Total income	$ 25,000	$ 25,700
Adjustment to income	-4,000	0
Adjusted gross income	21,000	25,700
Total itemized deductions or standard deductions	-9,700	-3,400
Family exemptions	-4,000	-4,000
Taxable income	7,300	18,300
Total tax	1,468	2,288

HANDOUT 3-4

Instructions: Here is the basic information contained in hypothetical tax returns of two families for the same year. Use this basic information and the tax tables provided in the instruction booklet for Income Tax Form 1040 to calculate the taxes each family will pay. Assume that each family consists of a husband and wife who file a joint return, and have young children.

Basic Tax Information

	Smith Family	Jones Family
Wage and salary income	$ 25,000	$ 25,000
Number of children	2	2
Mortgage interest paid	(6,000)	(0)
Other interest paid	2,500	0
IRA's (Individual Retirement Accounts)	4,000	0
Taxable interest income	0	700
Deductible medical expenses	1,000	0
Charitable contributions	200	0

Calculation of Income Tax Owed

	Smith Family	Jones Family
Total income	_____	_____
Adjustments to income (includes IRA's)	_____	_____
Adjusted gross income	_____	_____
Total itemized deductions or standard deduction, whichever is larger	_____	_____
Number of exemptions X $1,000	$ 4,000	$ 4,000
Taxable income	_____	_____
Total tax	_____	_____

DEDUCTIONS AND EQUITY, II

(Time: 20 minutes)

Objective 5:

A. Define "vertical equity."

B. Discuss how deductions and exemptions affect the progressivity of federal income taxes.

Materials:

Participants' completed copies of Handout 3-4, if available; chalkboard or blank transparency and overhead.

Description:

Write the answers to Handout 3-4 on the chalkboard or a transparency. Then add one more hypothetical figure to the Basic Tax Information for the Smith family: $10,000 of tax-free interest from municipal bonds. Then ask the following questions:

1. Would this increase in income change the amount of taxes owed by the Smith family? (No, because the added income is tax free.)
2. What percentage of its total income will the Smiths pay in federal income taxes? ($468/25,000 + 10,000) = 1.3%
3. What percentage of its total income will the Jones' pay in federal income taxes? ($2,288/25,700) = 8.9%
4. Is the amount of taxes paid by the Jones and Smith families consistent with the principle of vertical equity: namely that those with higher incomes should pay a greater percentage of their incomes in taxes. If not, what is the reason for the inconsistency? (No. A comparison of the percentage of income paid by the two families shows that the income tax can be

regressive, which is certainly not consistent with the principle of vertical equity. The regressiveness occurs because the Smith family took advantage of many more tax exemptions and deductions than did the Jones family. For further discussion on vertical equity, see commentary in the Teacher's Guide for Program Four.)

5. Do you consider the difference in tax payments by the two families to be fair or unfair? (Answers will vary. Those who consider the result unfair must argue against the granting of exemptions, deductions, and exclusions. Those who consider the result fair must argue that the exemptions, deductions, and exclusions are valid and worthwhile, and that the Jones family is suffering the consequences of not taking more advantage of the tax exemptions and deductions. These tax exemptions and deductions are part of national tax policy because of voter wishes as expressed by their representatives in the Congress and the president they have elected, who together make tax policy.)

Summary discussion of activities for objectives 4 and 5

The different taxes paid by the Smith and Jones families demonstrate that horizontal and vertical equity may not be achieved when the tax structure includes exemptions, deductions, and exclusions. The exercise in objective 4 shows that two families with similar incomes may pay vastly differing taxes. It demonstrates a violation of the principle of horizontal equity: people with the same incomes should pay the same taxes. The exercise in objective 5

shows that the federal income tax may become regressive, through the effects of exemptions and deductions, and thus violate the principle of vertical equity: those with higher incomes should pay a higher percentage of their income in taxes.

Even though these instances occur frequently, the overall federal income tax is still, on the whole, progressive. Recent studies show that even when all the exemptions, deductions, and exclusions are taken account of, those in higher income groups pay larger percentages of their incomes in federal income taxes than lower income groups do.

MODULE 4

TAXES AFFECT DIFFERENT INCOME GROUPS

Participant Objectives:

1. Define progressive, proportional, and regressive taxes and determine what data is needed to classify taxes into these three categories.

   (Is A Tax Progressive, Proportional or Regressive?) 20 minutes

2. A. View and briefly discuss Program Four.

   B. Complete and discuss the Student Handout provided in the Teacher's Guide for Program Four.

   (Taxes Affect the Different Income Groups) 40 minutes

3. Apply the criterion of "fairness" to assess different income tax structures.

   (Designing a Tax System) 20 minutes

4. Name factors that determine whether a sales tax is progressive, proportional, or regressive.

   (Sales Taxes: Progressive, Proportional, or Regressive?) 30 minutes

5. Determine whether federal income taxes are progressive by using federal income tax tables to ascertain average and marginal tax rates for different income groups.

   (Are Federal Income Taxes Progressive?) 45 minutes

6. Use a five-step decision making model to decide on how to raise revenue for a specific public good or service provided by a state government.

   (You Choose a Tax!) 40 minutes

IS A TAX PROGRESSIVE, PROPORTIONAL, OR REGRESSIVE?

(Time: 20 minutes)

Objective 1:

Define progressive, proportional, and regressive taxes and determine what data is needed to classify taxes into these three categories.

Materials:

Chalkboard (or blank transparency and overhead projector)

Description:

Review the objectives of all lessons in this entire module (see previous page) with the participants. Point out that the discussions throughout will center on the aspect of the fairness of taxes--that is--how various kinds of taxes affect people in different income groups. Define progressive, proportional, and regressive taxes. (The definitions are given in the Student Objectives of the Teacher's Guide for Program Four.)

Divide the participants into small groups and ask each group to consider a specific tax. Possible taxes to assign include: sales, federal personal income, social security, and excise taxes. Each group should decide what they need to know to determine whether the tax they are considering is progressive, proportional or regressive. Ideally, they will consider such factors as how a tax is levied (e.g., at one rate for all--i.e., a flat rate, at higher rates the higher the levels of income, etc.) and the incidence of the tax on various income levels. After they have taken the relevant factors into account they should determine, whether the tax they are considering is progressive, proportional, or regressive.

As each group reports, write their conclusions on the chalkboard. Save these conclusions and discuss them after they have seen the film for Program Four.

TAXES AFFECT THE DIFFERENT INCOME GROUPS

(Time: 40 minutes)

Objective 2:

A. View and briefly discuss Program Four, "Taxes Affect Different Income Groups."

B. Complete and discuss the Student Handout provided in the Teacher's Guide for Program Four.

Materials:

Tax Whys film "Taxes Affect Different Income Groups" and appropriate equipment for viewing; Student Handout for Program Four from the Teacher's Guide.

Description:

After showing the film, ask participants to recall the various taxes mentioned in the film and to classify each as progressive, proportional, or regressive.

Distribute and have participants complete the Student Handout for Program Four, which asks students to classify various taxes as primarily progressive, proportional, or regressive. Allow time for completion then have participants share and discuss their responses.

During the discussion make certain that the participants understand that it is not only necessary to look at how a tax is levied (i.e., flat rate, sliding scale, etc.), but it is also very important to determine which income groups seem to carry the heaviest tax burden from that tax. (Example: an excise tax on expensive jewelry is normally a flat percentage tax levied against the value of the jewelry. It is not, however, a proportional tax because purchases of such jewelry is generally confined to higher-income

groups, meaning that the tax tends to be progressive.)

The key issues involved in the Handout are outlined in the Commentary section of the Teacher's Guide for Program Four. The answers to the questions in the Handout follow.

1. Federal Income Tax - generally progressive
2. Sales Taxes - generally regressive
3. Property Tax - generally progressive
4. Social Security Payroll Tax - regressive
5. State Income Tax - proportional
6. Cigarette Excise Tax - regressive
7. Corporate Income Tax - progressive
8. The Overall U.S. Tax System - proportional

DESIGNING A TAX SYSTEM

(Time: 20 minutes)

Objective 3:

Apply the criterion of "fairness" to assess different income tax structures.

Materials:

Handout 4-3; Chalkboard (or blank transparency and marking pen)

Description:

Distribute Handout 4-3. Have participants read the Handout, then working individually, decide what each family's fair share of the country's $48,000 tax burden should be. Tell the participants to use as their sole criterion the "fairness" of the tax with respect to income. Allow about 5 minutes for participants to work, then have them give their solution to the problem. Write the solutions on the chalkboard and have participants examine each to determine if the tax it entails is proportional, progressive, or regressive.

Ask the participants who contributed the solutions why they favor their particular proposal. Write their reasons on the chalkboard. Note that while the only goal of this activity is to achieve tax "fairness", there may be different ways of defining fairness. Try to get participants to reach a consensus on which of the suggestions represents the "fairest" solution to the problem.

HANDOUT 4-3

DESIGNING A TAX SYSTEM

Imagine a country so small that only five families live in it. By chance, each family has two children. The parents in all the families are about the same age and the children in all the families are about the same age. However, one family has an annual income of $8,000, a second $16,000, a third $24,000, a fourth $32,000, and the fifth $64,000. Therefore, the total annual income of the country is $144,000. The country's economist has figured out that it will take $48,000 each year--a third of the country's total income--to provide the goods and services these families want their government to provide.

Problem: How much would each family pay in taxes if the country had the "fairest" income tax structure possible?

SALES TAXES: PROGRESSIVE, PROPORTIONAL, OR REGRESSIVE?

(Time: 30 minutes)

Objective 4:

Name the factors that determine whether a sales tax is progressive, proportional, or regressive.

Material:

Handout 4-4

Description:

Handout 4-4 presents three cases of different spending and saving patterns for two families. Ask participants to determine whether the sales tax in each case is progressive, proportional, or regressive and then ask the discussion questions.

Answers for Handout 4-4: (The calculations in dollars have been rounded to the nearest 0 or 5; those in percents to the first decimal.)

Situation 1. Since both families save 5% of their incomes and spend the rest, they will pay sales tax on 95% of their incomes. Thus, a family earning $20,000 will save $1,000 and will be able to pay a total of $19,000 in purchases plus the sales taxes on them. This works out to purchases of $17,925 plus sales taxes of $1,075. ($19,000 / 1.06 = $17,925; $19,000 - $17,925 = $1,075.) The $1,075 comes to 5.4% of an income of $20,000. A family earning $40,000 will save $2,000 and will be able to pay $38,000 in purchases and sales taxes. This works out to purchases of $35,850 and sales taxes of $2,150. (Same procedure as above, only start by dividing $38,000 by 1.06.) The $2,150 is also 5.4$ of an income of $40,000. Thus the sales tax in this situation is a proportional tax.

Situation 2. The new assumption is that both families save the same as in Situation 1 and both spend $3,000 on necessities exempt from any sales tax. With the remainder, a family with a $20,000 income will be able to pay a total of $16,000 in purchases and sales taxes. Applying calculations similar to those above and starting with $16,000 yields a tax of $905. The $905 amounts to a tax of $1,980. The $1,980 amounts to a tax of 5.0% on a $40,000 income. In this situation, the sales tax is a progressive tax.

Situation 3. This example assumes that the higher income family saves a larger percentage of its income and spends more on goods and services exempt from any sales tax than the lower income family does. The $20,000 family will have $13,600 ($20,000 - $400 - $3,000 - $4,000) left to pay for other goods and services plus the sales taxes on them. Doing calculations similar to those in the first two cases and starting with $13,600 yields a tax of $770. The $770 amounts to a tax of 3.9% on a $20,000 income. The $40,000 family will have $21,000 ($40,000 - $8,000 - $8,000 - $3,000) left to pay for other goods and services plus the sales taxes on them. Doing calculations similar to those in the first cases and starting with $21,000 yields a tax of $1,190. The $1,190 amounts to a tax of 3.0% on a $40,000 income. Thus, with the assumptions used in this situation, the sales tax is a regressive tax.

Discussion Questions

a. Yes, all three situations could occur.

b. Situation 3 represents spending and savings patterns that are true of the American public in general. That is, higher income families generally save a greater percentage of their incomes and spend a lower percentage of their incomes on goods and services subject to a sales tax than does a lower income family.

c. The factors include:

(1) If all income groups save the same percentage of their incomes, and all spending is subject to a sales tax, a sales tax will be proportional.

(2) If the same absolute amount of spending is exempted from a sales tax for all income groups, then a sales tax will be progressive.

(3) If higher income groups pay a sales tax on a smaller percentage of their incomes, a sales tax will be regressive.

Note: At some point, possibly along with the answer to discussion question b, tell participants that, all else being equal, sales taxes are regarded as being regressive. However, since certain things people spend money for and certain investments people make are exempt from sales taxes to varying extents, sales taxes may not be regressive in every case.

HANDOUT 4-4

SALES TAX: PROGRESSIVE, PROPORTIONAL, OR REGRESSIVE?

Instructions: Three situations, each of them showing expenditures of families with different income levels (after income taxes), are given below. Read each situation and determine whether the sales tax is progressive, proportional, or regressive. Then answer the questions at the bottom of the page.

Situation 1. Assume two families, one with $40,000 income and the other $20,000 per year (both figures are after paying income taxes.) Each family saves 5% of its income and spends the remaining 95% of it on goods and services subject to a sales tax of 6%. Is the sales tax in this situation progressive, proportional, or regressive?

Situation 2. Assume two families with annual incomes of $20,000 and $40,000 (after income taxes.) Each saves 5% of its income, each spends $3,000 a year on "necessary" goods and services exempt from the sales tax, and spends the remainder of its income on goods and services subject to a sales tax of 6%. Is the sales tax in this situation progressive, proportional, or regressive?

Situation 3. Assume two families with annual incomes of $20,000 and $40,000 (after income taxes). The $20,000 income family saves 2% of its income, spends $3,000 on housing exempt from sales tax, spends $3,000 on goods and services exempt from sales tax, and spends the remainder on goods and services subject to a sales tax of 6%. The $40,000 family saves 20% of its income, spends $8,000 on housing that is exempt from sales tax, spends $3,000 on other goods that are exempt from sales tax, and spends the remainder on goods subject to a

sales tax of 6%. Is the sales tax in this situation progressive, proportional, or regressive?

Discussion Questions

a. Do you think each of these situations could occur in real life?

b. Which of the three situations do you think is most representative of the spending and saving patterns of the American public?

c. What are the factors which determine whether a sales tax is progressive, proportional, or regressive?

ARE FEDERAL INCOME TAXES PROGRESSIVE?

(Time: 45 minutes)

Objective 5:

Determine whether federal income taxes are progressive by using federal income tax tables to ascertain average and marginal tax rates for different income groups.

Materials:

Handout 4-5; Tax tables from the most recent edition of Understanding Taxes or from current Income Tax Form 1040 or 1040A instruction booklet (one copy per participant); hand calculators, if available, would also be useful.

Description:

Ask participants to examine the tax tables and to use the information to complete Handout 4-5.

Explain that the average tax rate is the percentage of one's entire taxable income that is owed. The marginal tax rate is the percentage of income that is owed in taxes for a specific added amount of taxable income. For example, what is the rate of tax on the last $100 of taxable income?

In calculating the marginal tax rate during this activity, participants must look at the amount of taxes paid on the last $100 of taxable income. This can be determined from the tables--using the tax rates on income received in 1983--as follows: in 1983 a single individual with a taxable income of $9,900 paid $1,108 in income tax; a single individual with a taxable income of $10,000 paid $1,125.

The amount of tax due on the last $100 was $17 ($1,125 - $1,108.) The marginal tax rate was 17% ($17/$100.)

After participants have completed the handout, have then compare their results with others in the class. Have the participants discuss the following questions:

1. Is the federal income tax progressive in each filing category? (Yes. The percentage of taxable income that one owes increases as taxable income increases.)
2. Does this mean that those who receive larger incomes always pay a higher percentage? (Not necessarily. Some people with higher incomes may have a larger percentage of deductions than those with lower incomes. Moreover, some people may have a larger percentage of deductions than those with lower incomes. Moreover, some people may have a larger percentage of income that is not subject to federal taxes, such as interest on municipal bonds.)
3. What is the meaning of the marginal tax rate? (It tells us how much of each additional dollar of taxable income we receive will be owed in income taxes.)
4. Why is the marginal tax rate higher than the average tax rate? (The tax tables are designed to be progressive. If federal income taxes were proportional, the marginal tax rate would equal the average tax rate. For example, in 1983 a married couple

filing jointly with a taxable income of $20,000 owed $2,601 in taxes and their average tax rate was 13.005 percent [$2,601 / 20,000]. If their income had been $20,100 they would have owed $2,620 and their average tax rate would have been 13.03 percent [$2,620 / $20,100]. The reason for the increase would have been that the extra $100 of income would have been taxes at a marginal rate of 19%.)

5. What is the highest marginal tax rate? (The tax law in effect for 1983 income set the maximum marginal rate at 50%. This may be a good place to explain a common misunderstanding. Often individuals state that they do not want to be "pushed into a higher tax bracket." They believe that somehow they will be worse off. Remember that the highest marginal rate is 50%. That means if they are taxed at 50 percent they will owe $50 for each additional $100 they receive and will keep $50. They <u>are still</u> better off than if they do not receive that added $100. The only exception is a minor one. If an individual is exactly at the dividing line between brackets, an increase in taxable income of only a few dollars may mean an increase in taxes of a slightly larger amount. For example, an individual with a taxable income of $9,999 will owe $860. A $1 increase in income to $10,000 will mean a tax bill of $868. However in the case of, say, an increase from $10,000 to $10,049, that increase will not increase the tax at all.)

HANDOUT 4-5

CALCULATING AVERAGE AND MARGINAL TAX RATES

Instructions: Calculate through use of a tax table the Income Tax Due, Average Tax Rate, and Marginal Tax Rate on the last $100 for each of the taxable income levels indicated in the table for one of the following filing categories: (1) single; (2) married filing jointly; (3) married filing separately; and (4) head of household. In the blank space provided write the name of the filing category on which your figures are based.

Filing Category: _____

Taxable Income	Income Tax Due	Average Tax Rate	Marginal Tax Rate for Last $100 of Taxable Income
10,000			
20,000			
30,000			
40,000			

YOU CHOOSE A TAX!

(Time: 40 minutes)

Objective 6:

Use a five-step decision making model to decide on how to raise revenue for a specific public good or service provided by a state government.

Materials:

Handout 4-6; Chalkboard (or blank transparency)

Description:

Many states face extremely tight budgets and are not meeting some important public needs. In this activity the participants select a pressing public need in their state that should be met and use a five-step decision-making model to decide how to raise the necessary revenue to deal with the problem.

Start by asking each participant to list in order of priority the three most important public needs that the state government does not now seem to be addressing adequately. Current newspaper articles can provide some leads. Examples might include: repairing deteriorated roads and bridges, relieving overcrowding in prisons, improving the educational system, providing more state parks, extending services to the poor. List responses on the board and have the participants select the problem they think should be given the highest priority.

Ask participants to assume that state monies cannot be reallocated or shifted from other uses to meet the priority problem. The group should determine how to secure the funds so that the state can attack this problem.

Distribute Handout 4-6. Review the decision making process which is outlined in the handout. Have the participants suggest alternative means of raising the required revenues. They might include increasing the sales tax, the income tax, the inheritance tax, or excise taxes. The participants may also suggest the enactment of new taxes. Once the alternatives are specified, the participants should consider the various criteria that one may use for evaluating the alternatives (e.g., efficiency of collection, adequacy of the funds derived, fairness of the tax, etc.).

After sufficient criteria have been specified, divide the class into groups of four or five members each. Ask the groups to complete the last two stages of the decision-making process using the grid in Handout 4-6. Allow about ten minutes for the groups to work, then have them state their decisions and the reasons for selecting one particular alternative over another.

HANDOUT 4-6

HOW SHALL WE RAISE THE REQUIRED REVENUE?

Instructions: Your group has selected a pressing public need that your state government is not meeting adequately. Use the decision-making model below (including use of the matrix) to determine how the revenue necessary to alleviate the need should be raised.

Step One: Define the problem.

Step Two: Specify alternative solutions and list them on the grid.

Step Three: Specify criteria on the grid.

Step Four: Evaluate alternatives (+ if the criterion will be met; - if the criterion will not be met; and 0 if the alternative has no effect on the criterion.)

Step Five: Make a decision. Star (*) the alternative you choose.

Alternatives	Criteria		
	1.	2.	3.
1.			
2.			
3.			
4.			
5.			

MODULE 5

SOME TAXES CAN BE SHIFTED

Participant Objectives:

1. A. Make decisions about what individuals and business managers might do when faced with tax increases.

   B. Review vocabulary section of the Teacher's Guide for Program Five.

(More Taxes...What Will I Do?) **30 minutes**

2. A. View and briefly discuss Program Five.

   B. Review discussion questions in the Teacher's Guide and develop other questions related directly to the course(s) in which the film is to be used.

(Taxes...Can They Be Shifted?) **30 minutes**

3. A. Review the concepts of supply, demand, elasticity, and equilibrium price to provide background for participants' understanding of tax shifting.

   B. Review and discuss the Commentary for Program Five in the Teacher's Guide.

(Suggestions for Teaching About Supply and Demand) **One hour**

4. Explain how tax shifting affects price and quantity supplied and demanded in a competitive marketplace.

(Taxing the Big Apple) **One hour**

5. A. Solve problems which involve using graphs in order to illustrate the elasticity of supply and demand and determine the relationship between elasticities and government

revenues.

B. Review and discuss activities in the Teacher's Guide for Program Five.

(The Government Needs More Revenue) **40 minutes**

MORE TAXES...WHAT WILL I DO?

(Time: 30 minutes)

Objective 1:

A. Make decisions about what individuals and business managers might do when faced with tax increases.

B. Review vocabulary section of the Teacher's Guide for Program Five.

Material:

Handout 5-1

Description:

This activity expands on the suggested "Before the Program" discussion in the Tax Whys Teacher's Guide. Participants will assume the roles of individuals and business managers who must decide what to do when faced with tax increases.

Distribute Handout 5-1. Divide the class into at least six teams and assign one of the three situations in the handout to each team. Each situation should be assigned to at least two teams so that decisions and the reasons behind them can be compared. Allow about ten minutes for group work.

Ask each team to report to the class. When the reports are completed, review the definitions of a direct and indirect tax in the Teacher's Guide and ask participants to classify the sales tax, property tax on owner-inhabited houses, and social security as direct or indirect taxes. (The film that is used for Objective 2 will deal with how property taxes can be shifted.)

Possible Outcomes of Group Activity

Situation 1: The owner of A-zee Hardware will want consumers to pay the new local sales tax in Fixit instead of driving to Compete to buy products at lower total prices. Prices at A-zee could be lowered by reducing the wages of employees at the store. The owner might also find innovative methods of reducing costs or encouraging consumers to buy at A-zee even though prices may be higher. Sales taxes are usually shifted forward to consumers or backwards to employees, although single proprietors can choose to reduce their own income.

Situation 2: Property taxes on owner-occupied homes are direct taxes. It is difficult to shift them. It is possible that some participants will suggest that the tax can be shifted by renting out a room. Others may decide that the answer is to try to buy a less expensive house or to pay the tax increase by trying to reduce their personal expenditures.

Situation 3: The President of Rigamarole will try to choose the easiest way to pay the increased employer's half of the Social Security tax. The choice will be between (1) increasing the prices of knee socks to consumers; (2) lowering dividends to stockholders; (3) reducing wages to employees; (4) reducing the number of employees; (5) adding new products that are more profitable than the socks; (6) making production more efficient; (7) a combination of the

above. Choices 1, 3, and 4 would indicate that the portion of the tax borne by the corporation is an example of an indirect tax. Choices 2, 5, and 6 would indicate that the tax is probably direct. Choice 7 would indicate that the tax has both direct and indirect characteristics.

HANDOUT 5-1

MORE TAXES...WHAT WILL I DO?

Directions: Analyze whichever of the following situations is assigned to you. Make a decision about what to do if you were faced with the tax increase in that situation.

Situation 1: You are the owner of A-zee Hardware Store in the town of Fixit, in which there are three other hardware stores. The nearest town of Compete is 10 miles away and has three hardware stores. The state sales tax is 6%, and in Fixit voters have just approved a new 2% city sales tax. How will you pay the 2% additional tax imposed upon your sales without losing sales volume?

Situation 2: A statewide property reassessment has been completed, and the annual tax on your house has been raised from $600 to $1600. Your gross monthly income is now $2000, the principal and interest payment on your mortgage is $450, and the mortgage and property insurance is $50. You have two small children and you are already going further in debt each month. What will you do about the tax increase?

Situation 3: This is the year 1990, and you are President of the Rigamarole Corporation, which has 500 employees. Your corporation specializes in the production and sale of quality embossed knee socks: "It's Rigamarole or bare sole!" Last year profits equalled only one-quarter of one percent of sales, and the shareholders are angry. In two years the Social Security tax will

rise to 16 percent of annual wages--up from the 1989 rate of 14 percent. Since employers pay half of the Social Security tax, the corporation's one-half share will go up one percent. It seems certain that the workers will demand higher wages to help them pay for their portion plus some improvement in their general wage. How will you make certain that you will be able to pay for the employer share of the increased social security taxes without wiping out your recent meager profit margin?

PROGRAM FIVE: TAXES...CAN THEY BE SHIFTED?

(Time: 30 minutes)

Objective 2:

A. View and briefly discuss the film "Taxes...Can They be Shifted."

B. Review discussion questions in the Teacher's Guide and develop other questions related directly to the course(s) in which the film is to be used.

Materials:

Tax Whys Program Five, "Taxes...Can They be Shifted?"

Appropriate viewing equipment.

Description:

After participants have seen the film, ask them to read the After the Program discussion questions in the Tax Whys Teacher's Guide. Next, have participants develop other discussion questions which relate the program to specific courses the teachers are currently teaching. A home economics teacher, for example, might frame the following question for students: "Last month when we planned family budgets, some of you were trying to decide whether to rent or buy a home. Did you learn anything about the property tax that could influence your decision?" Ask participants to share their discussion questions with the class.

SUGGESTIONS FOR TEACHING ABOUT SUPPLY AND DEMAND

(Time: One hour)

Objective 3:

A. Review the concepts of supply, demand, elasticity, and equilibrium price to provide background for participants' understanding of tax shifting.

B. Review and discuss the Commentary for Program Five in the Teacher's Guide.

Materials:

Visual 5-3; Handout 5-3; blank transparency and marking pen (or chalkboard); one apple, donut, or other product with a similar price range.

Description:

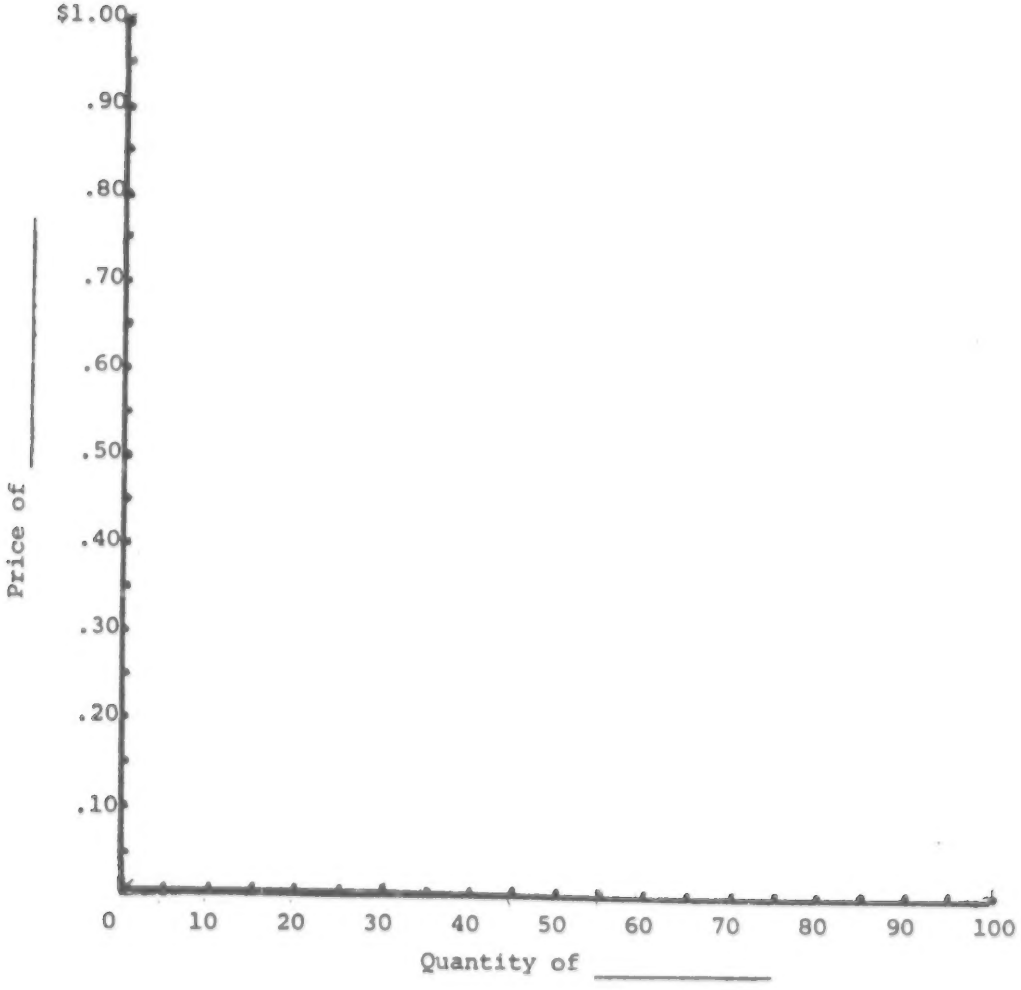
Most participants will be interested in reviewing supply and demand, particiularly because they will be teaching these concepts to their students. The concept of elasticity is important because the Tax Whys Teacher's Guide has an activity in which students are asked to determine whether producers or consumers pay the larger share of an excise tax on selected products. The guide points out that the degree to which an indirect tax is shifted depends on elasticity, i.e., on the relative sensitivity of the quantity demanded and the quantity supplied to changes in price.

Project Visual 5-3 (or copy the chart in the visual on the chalkboard), and conduct the lecture and discussion detailed in Handout 5-3. Wait until after the discussion to give participants their own copies of the handout.

Part 1 of the handout concentrates on demand and supply at one given moment. Part 2 describes the variables that affect changes in supply and demand. The Commentary section of the Teacher's Guide discusses changes in supply and demand in much the same way as Part 2 of Handout 5-3.

Have participants read and discuss the Commentary and After the Program activities for Program Five in the Teacher's Guide.

VISUAL 5-3


$1.00
.90
.80
.70
.60
.50
.40
.30
.20
.10
Price of _____
0
10
20
30
40
50
60
70
80
90
100
Quantity of _____

HANDOUT 5-3

SUGGESTIONS FOR TEACHING ABOUT SUPPLY AND DEMAND

Part 1: How to Construct a Demand Curve

Hold up the apple (or other item you intend to use for the lesson). Ask students how many apples they would be willing to purchase at a variety of prices. Begin by offering apples at a high price and count the number that the class demands at that price. Continue reducing the price until many apples are demanded. Place student responses on the chalkboard in the form of a demand schedule such as the following:

Price	Quantity Demanded
$0.60	5
.50	20
.40	40
.30	60
.20	75
.10	100

Transfer the data from the demand schedule generated in the class to a chart (see Chart 1), with PRICE on the vertical axis and QUANTITY on the horizontal axis and connect the points (see next two paragraphs.)

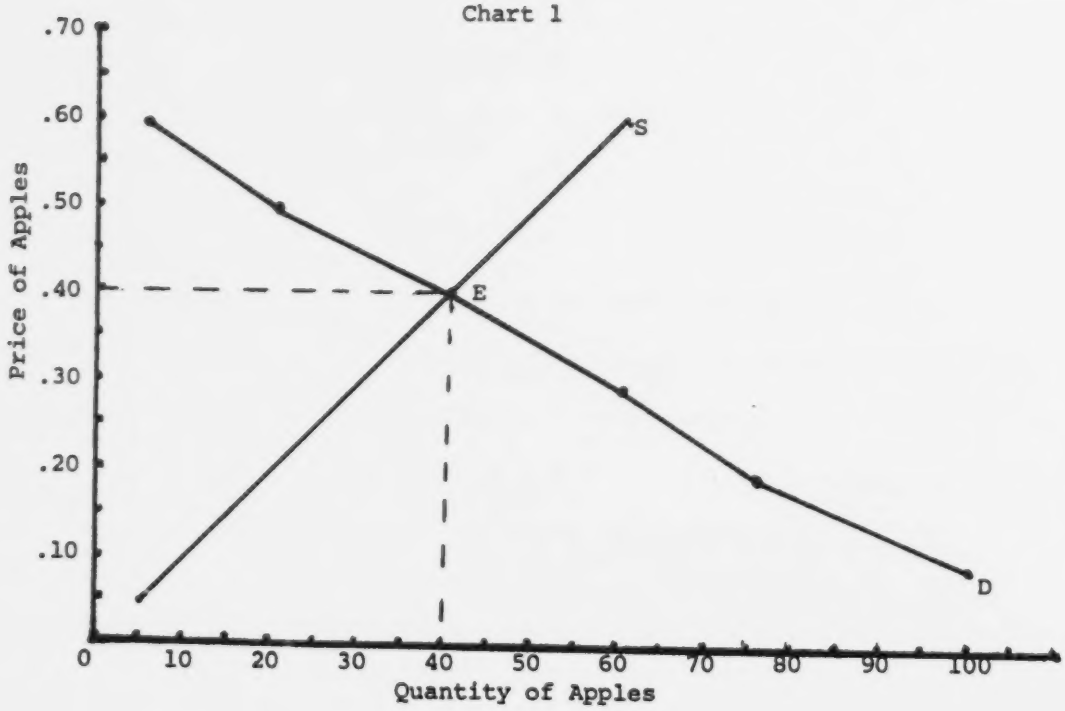
Draw a demand curve (D), such as the one shown in Chart 1. Point out that demand curves typically slope downward from left to right because the quantity demanded usually increases with a decrease in price. Many goods or services have an elastic demand, that is,

the quantity demanded changes a great deal if prices change. If the quantity demanded changes very little in response to changes in prices, then an inelastic demand exists.

Draw a supply curve (S), such as the one shown in Chart 1. Point out that most supply curves slope upward to the right, which indicates that producers are willing to supply greater quantities at higher prices.

Handout 5-3 (continued)

Chart 1



Draw lines from the point of intersection of S and D (labeled E) perpendicular to the X and Y axes (these are the broken lines shown in Chart 1.) Explain that the point E determines the equilibrium price or market-clearing price (about 40 cents in the chart) and the equilibrium quantity (about 40 apples.)

At a price of 60 cents, five apples would be demanded, 60 apples would be supplied, and there would be a surplus of apples. At a price of 10 cents, 100 apples would be demanded, 10 apples would be supplied, and there would be shortage of apples.

Part 2: Determinants of Demand and Supply

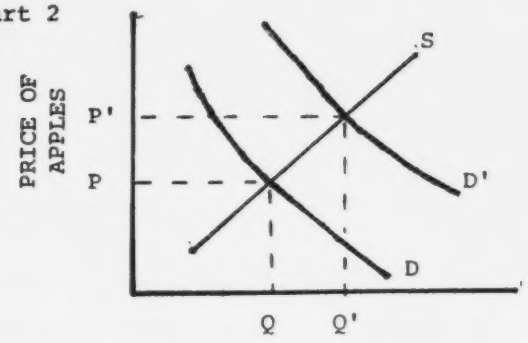
Demand is a function of (depends upon) taste, substitute goods and their prices, prices of complements, time, population, income, and expectations of future prices. (Taste depends on tradition, necessity, location, season of the year, fads, etc.).

Supply depends upon availability of resources, number of producers, technology, costs of production, price expectations, and weather.

For example:

(1) The demand for apples may increase from D to D' in Chart 2 if drought destroys an orange crop. Oranges will be in short supply and people may substitute apples for oranges.

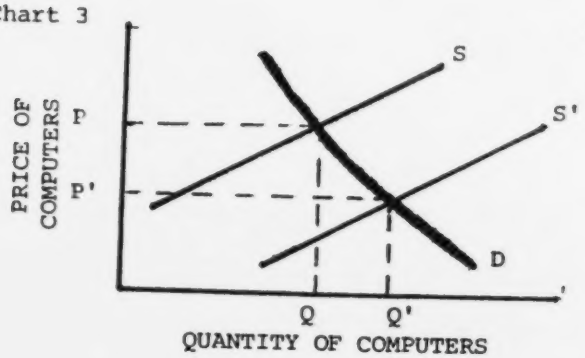
Chart 2



This shift in demand (more apples demanded at each and every price) causes the equilibrium price to rise to P' and the equilibrium quantity to increase to Q'.

(2) The supply of computers may increase (from S to S' in Chart 3) if the manufacturing technology improves, thus causing a lowering of the cost of production. Suppliers will offer more computers for sale at each and every price.

Chart 3



The shift in supply will cause the equilibrium price to decrease to P' and the equilibrium quantity to increase to Q'.

TAXING THE BIG APPLE

(Time: One hour and 15 minutes)

Objective 4:

Explain how tax shifting affects price and quantity supplied and demanded in a competitive marketplace.

Materials:

Handouts 5-4, 5-4A, 5-4B, 5-4C; Buyer and Seller Cards (see Handout 5-4 for instructions); Visual 5-4; chalkboard or blank transparency and marking pen.

Description:

Handout 5-4 is adapted from the activity entitled "Market Simulation - The Big Apple" from a volume in the Joint Council on Economic Education's Master Curriculum Guide series. In this adaptation, participants engage in the buying and selling of apples both before and after an excise tax on apples is imposed. This experience should assist participants to understanding clearly the effects of one type of consumption tax.

Follow the directions given in Handout 5-4 to conduct the simulation. The handout can be distributed to the participants after the simulation is completed.

HANDOUT 5-4

TAXING THE BIG APPLE

Time Required: Two or more class periods

Recommended Grade Level: 9-12

Major Concepts: Supply, demand, marketplace, competitive markets, tax shifting

Related Concepts: Graphs, profit, equilibrium price

Instructional Objectives. Students will:

1. Experience what it is like to be buyers and sellers in a competitive marketplace.
2. Make generalizations about and discuss the nature of the competitive marketplace.
3. Observe that prices tend to move toward equilibrium in a competitive marketplace.
4. Describe how supply and demand influence prices.
5. Explain the effects of the imposition of an excise tax.

Materials:

- Informational chart for each participant (Handout 5-4A)
- 36 buyer and 36 seller cards (instructions, and pictures of cards to be reproduced appear later in the handout you are now reading)
- Individual score sheets--two per participant (Handout 5-4B)
- Classroom transaction record--one per class (included later in the handout you are now reading.) Reproduce chart on the chalkboard.

Note: This activity requires a class of 20 students to be

effective. Up to 50 or 60 students can be involved if the room is large enough.

Procedure for Rounds 1 and 2

1. Clear center of room and designate it as the marketplace.
2. Select one student to be keeper of the Big Apple Cards.
3. Select one student to record all transactions on the Big Apple classroom transaction record.
4. Divide the class into two equal groups. One group will be sellers; one group buyers. Explain that buyers will be buyers throughout the game, and sellers will be sellers throughout the game. Explain that when a seller finds a buyer and agrees on a price, THE SELLER goes to the Big Apple Market tally sheet and records the deal. Then both the seller and buyer get new cards from the keeper of the Big Apple cards and re-enter the marketplace. (It is a good idea to have the keeper of the cards located in the same part of the classroom where the Apple Market tally sheet is located.)
5. Explain that buyers and sellers can buy/sell in multiples of $5 and $10 ony.
6. Hand out individual tally sheets (Handout 5-4B) and request that each student record his or her transactions as they are made. Review details on the tally sheet if necessary.
7. Explain that the goal of both buyers and sellers is to make a profit.
8. Explain that you will conduct four rounds of trading sessions of 5 minutes each. Announce to the students when one minute

remains in each round.

9. After each round, allow students time to figure their net losses or gains.

10. Encourage students to make as many deals as they can in the time permitted. Explain that it is permissible to take a loss in order to get a new Big Apple transaction card. Try not to give away the fact that the students who will have the highest profits are usually those who engage in the most transactions. This fact will be "discovered" during the discussion following completion of the game.

11. During nontrading time between round 1 and round 2, direct students' attention to the market record on the Big Apple classroom transaction record. Say that it contains useful information for them. Do NOT elaborate.

12. Conduct a postgame discussion:

    a. What is the price the apples are most frequently sold at in Round 1? Round 2? (Examine data.)

    b. In which round was there the greatest spread in price? (Examine data.)

    c. Why did the prices become more clustered? (Answer: Increasing competition is the most important cause for the clustering prices. This phenomenon represents the tendency of a competitive market to move toward an equilibrium price.)

    d. Who determined the "market price" for apples, buyers or sellers? (Answer: Both buyers and sellers through their

interactions in the marketplace.)

e. How did supply and demand (sellers and buyers) influence price? (Answer: Sellers tried to get higher prices, buyers tried to get lower prices. Because there was competition among members of each group no one had control over the price.)

f. Why were some students able to make more total profits than others? (Probable answer: They were able to conclude many transactions, each of which yielded a small profit.)

Procedure for Round 3 and Round 4

1. Round 3: Impose a 20% excise tax on all sales. The seller will be responsible for paying this tax at the end of the round. Therefore, sellers should add a column to their Individual Score Sheet entitled "20% Excise Tax." (The excise tax at various prices is given in Handout 5-4C.) This amount must be added to each transaction price, whether it be a gain or a loss. At the end of the round, the total amount of taxes should be subtracted from Total Gain or added to Total Loss.
2. Round 4 should be played the same as Round 3. However, since students will now have a clearer understanding about the effects of excise tax, there may be differences in strategies and results.
3. Discussion Questions for Round 3 and Round 4:

   a. Did the price at which apples are most frequently sold change with the excise tax? (A large increase shows that the tax was shifted to consumers. A small increase or no change

shows that sellers bore the tax burden.)

b. Did the total quantity sold change and were sellers or buyers most affected by the tax? (In general, less of a good or service is sold when prices go up. The sellers probably were most affected by the tax because they had a supply of apples which couldn't be sold and couldn't be stored. They would end up taking a large loss.)

c. How many buyers made a net gain in Round 3 or Round 4 which was higher than their average net gains in Round 1 and Round 2? How many sellers? Why or Why not? (The outcome is hard to predict because often individuals draw a series of difficult transaction cards during one round. However, in general, neither buyers nor sellers will make large gains because of the price increase which will probably accompany the tax.)

d. Who gains the most from an excise tax? (The government will make goods and services available with the tax revenues. The citizens who receive these public goods and services will gain.)

e. Show Visual 5-4 and explain the graph (see section f, below). Try to determine if the simulation results are at all similar to this hypothetical graph. For the purpose of simplicity a flat $20 tax is used on the visual while a percentage tax, the more usual kind, is used in the simulation.

f. <u>Explanation for Visual 5-4</u>: As is true for almost all things

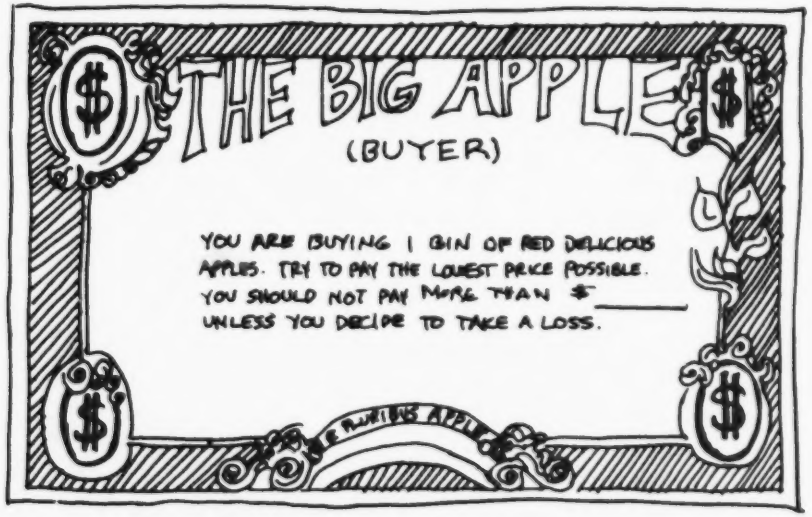
bought and sold in a market, more apples are demanded at lower prices than at higher prices. In the visual the line labeled D represents demand and the line labeled S represents the pre-tax supply. The point at which these lines intersect shows that the equilibrium price for apples in this market (P_e) is \$55 and the equilibrium quantity (Q_e) is 14 bins of apples. Adding the \$20 tax produces a new supply curve which is labeled S + tax on the visual. The point at which S + tax and demand (still line D) intersect marks the new equilibrium price, P_t, which equals \$65 a bin. However, at \$65 a bin, the equilibrium quantity, Q_t, is only 9 bins, and producers will receive \$45 a bin because \$20 goes to the government to pay the tax. In summary, producers sell fewer bins (14 without taxes vs. 9 with taxes) and receive lower prices (\$55 without tax vs. \$45 with tax.) Consumers buy fewer bins (9 instead of 14) at higher prices (\$65 instead of \$55). In the example, the seller was able to shift half of the tax to the buyer, since the tax imposed was \$20 per bin and the price rose only \$10 per bin. In general the proportion of tax that can be shifted varies from product to product depending on the slopes of the supply and demand curves for each particular product.

Source: Adapted from Master Guide in Economics for the Nation's Schools, Part II: Strategies for Teaching Economics: Basic Business and Consumer Education (Secondary), Joint Council on Economic Education, 1979.

Handout 5-4 (continued)

Instructions for Buyer and Seller Cards

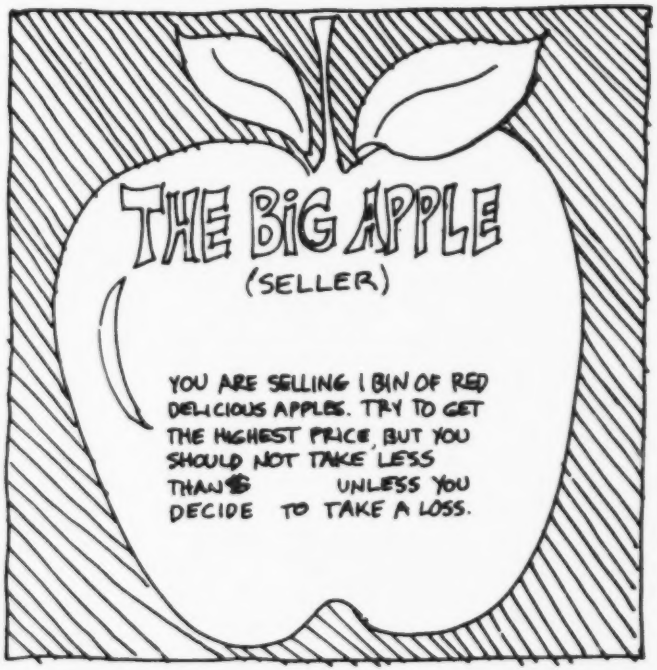
MAKE **36**


THE BIG APPLE
(BUYER)
YOU ARE BUYING 1 BIN OF RED DELICIOUS APPLES. TRY TO PAY THE LOWEST PRICE POSSIBLE. YOU SHOULD NOT PAY MORE THAN $_____ UNLESS YOU DECIDE TO TAKE A LOSS.

MAKE: 4 BUYER CARDS
AT: $90, $80, $30, $20
(16 CARDS)

5 BUYER CARDS
AT: $70, $60, $50, $40
(20 CARDS)

MAKE **36**


THE BIG APPLE
(SELLER)
YOU ARE SELLING 1 BIN OF RED DELICIOUS APPLES. TRY TO GET THE HIGHEST PRICE, BUT YOU SHOULD NOT TAKE LESS THAN $ UNLESS YOU DECIDE TO TAKE A LOSS.

MAKE: 4 SELLER CARDS
AT: $100, $90, $40, $30
(16 CARDS)

5 SELLER CARDS
AT: $80, $70, $60, $50
(20 CARDS)

Handout 5-4 (continued)

BIG APPLE CLASSROOM TRANSACTION RECORD

(reproduce on chalkboard)

Price	ROUND 1 (10 minutes)	ROUND 2 (10 minutes)	ROUND 3 (10 minutes)	ROUND 4 (5 minutes)	ROUND 5 (5 minutes)
$100					
95					
90					
85					
80					
75					
70					
65					
60					
55					
50					
45					
40					
35					
30					
25					
20					

Directions for Recorder: place "hash marks" (e.g., 𝍸) beside the agreed-upon price when the seller reports it to you. Only one hash mark should be recorded for each transaction.

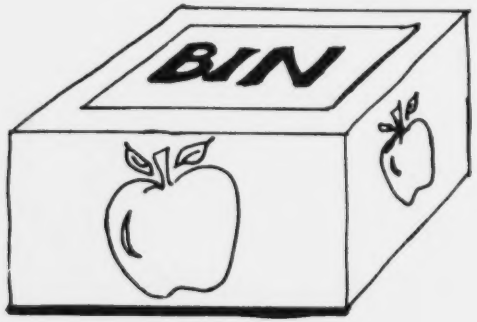
HANDOUT 5-4A

THE BIG APPLE

INFORMATIONAL CHART

(Post in Room) 24 x 36

AFTER THEY COME FROM THE ORCHARD, APPLES ARE PLACED IN BINS AT A WAREHOUSE.



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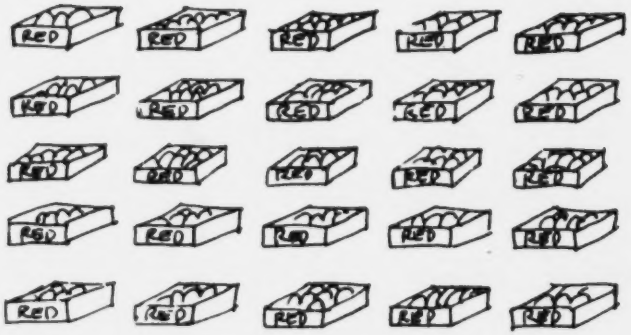


EACH BIN = 25 BOXES OF APPLES

EACH BOX WEIGHS APPROXIMATELY 40 lbs.

BUYERS & SELLERS MEET AT THE MARKETPLACE FOR COMMODITIES TO MAKE DEALS IN APPLES.

QUESTION: HOW MUCH DOES A BIN OF APPLES WEIGH? 1,000 lbs. IF YOU COULD SELL THE APPLES FOR 10¢ A lb. HOW MUCH WOULD YOU GET? IF YOU THINK THE ANSWER IS $100.00, YOU'RE READY FOR THE BIG APPLE!

From *In the Marketplace: A Basic Unit on the American Economic System*, Office of the Superintendent of Public Instruction, State of Washington, Olympia, Washington (1976). Reprinted, with modifications, by permission.

HANDOUT 5-4B

INDIVIDUAL SCORE SHEET—BIG APPLE

Circle One: BUYER SELLER NAME _____

Directions: For each transaction, when you get a card enter the price in column II. After you make a transaction, record the price in column III of the same row. You tally the gains, losses, and totals at the end of the game. Tally your losses and gains by taking the difference between your transaction price and the price on your card for each transaction. For example, if a seller sells at a price higher than the price on his card, he makes a gain; if lower, he takes a loss. If a buyer buys at a lower price than his card price, he makes a gain; if higher, he takes a loss. Ignore the break-evens. Total up your gains and losses and mark them in the appropriate places at the bottom. Your net gain or loss is the difference between the sum of the gains and the sum of the losses. Indicate where rounds 1, 2, and 3 ended by a mark.

Transaction Number (I)	**Price on Your Card** (II)	**Transaction Price** (III)	**Gains** (IV)	**Losses** (V)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Total number of transactions _____ Total gain _____ Total loss _____ Net Gain/Loss (Circle one)

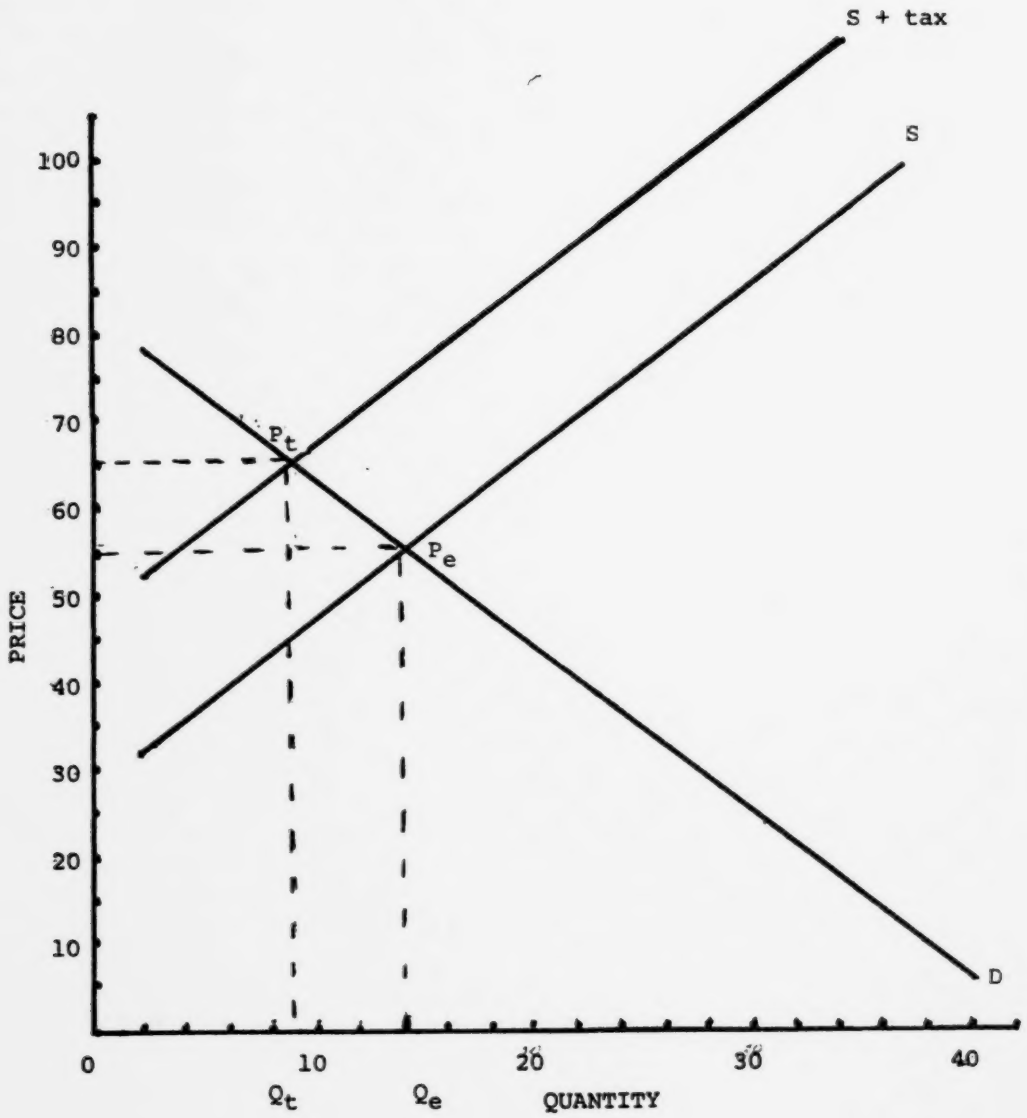
HANDOUT 5-4C

20% EXCISE TAX CHART FOR "TAXING THE BIG APPLE"

Transaction Price	Tax
$ 100	$ 20
95	19
90	18
85	17
80	16
75	15
70	14
65	13
60	12
55	11
50	10
45	9
40	8
35	7
30	6
25	5
20	4

Visual 5-4

Hypothetical Transactions in Apple Market Before and After Tax is Added



THE GOVERNMENT NEEDS MORE REVENUE

(Time: 40 minutes)

Objective 5:

A. Solve problems which involve using graphs in order to illustrate the elasticity of supply and demand and to determine the relationship between elasticities and government revenues.

B. Review and discuss activities in the Teacher's Guide for Program Five.

Material:

Handout 5-5

Description:

Whenever a government places a tax on a good or service, the quantity sold will tend to decrease because producers will try to shift the tax by, in effect, raising the price to consumers, and demand is normally sensitive to changes in price. If the quantity demanded decreases significantly, the government may well not receive as much revenue from the new tax as it anticipated. If government's primary purpose in levying a new tax or increasing an existing tax is primarily to raise more revenues, it will try to tax products for which consumer demand is not too sensitive to price, i.e., demand is relatively inelastic.

The problem in Handout 5-5 is designed to show in an easy step-by-step process the relationship between elasticities and tax revenues. Go over the sample problem with the participants and then ask them to complete the three problems that follow. Discuss answers afterwards to the extent necessary.

Finish by reviewing and discussing the activities in the Teacher's Guide for Program Five that relates to elasticities.

Answer Key for Handout 5-5

(Note: Participants may have slightly different figures)

Problem One

Color television	$Q_e = 50$	$Q_t = 43$	Tax revenue = $4,300
Health Care	$Q_e = 50$	$Q_t = 47$	Tax revenue = $4,700

Place tax on health care services since that tax will bring in more revenue. Consumers are less sensitive to price changes when purchasing health care as compared to purch ing television sets because the demand for health is relatively inelastic.

Problem Two

Auto tires	$Q_e = 300$	$Q_t = 245$	Tax revenue = $7,350
Electricity	$Q_e = 300$	$Q_t = 265$	Tax revenue = $7,950

Place tax on electricity since that tax will bring in more revenue. Suppliers of electricity are normally not very sensitive to price changes.

Problem Three

Chicken	$Q_e = 1000$	$Q_t = 50$	Tax revenue = $150
Bananas	$Q_e = 1000$	$Q_t = 850$	Tax revenue = $170

Place tax on bananas to obtain more revenue. Both the supply and demand curves for chicken are more elastic than for bananas. Thus the price of bananas can rise more without a large drop in the quantity sold.

HANDOUT 5-5

HOW CAN WE RAISE MORE REVENUE?

Sample Problem

The government needs more revenue. Given the demand curves for coffee and fresh tomatoes, to which product should the government add a $1.00 tax per unit sold?

1. Study the graphs marked "Given" to see the situation for each product before the tax is added.
2. Step One - Draw a new Supply + tax curve for each product by adding $1.00 to the supply curve at each and every point.
3. Step Two - Determine the quantity which would sell before the tax (Q_e or equilibrium quantity) and after the tax (Q_t).

   Coffee $Q_e = 10$ $Q_t = 9$

   Fresh tomatoes $Q_e = 10$ $Q_t = 7.5$

4. Step Three - Determine total government revenue in each case.

   Coffee: 9 units x $1.00 = $9.00

   Fresh tomatoes: 7.5 units x $1.00 = $7.550

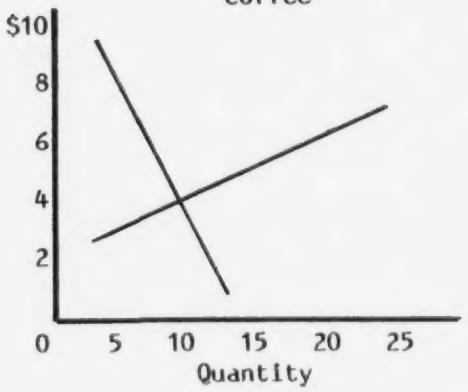
5. Answer: The government should tax coffee because that will bring in more revenue. Note that the demand curve for fresh tomatoes is more elastic than the demand curve for coffee, that is, a change in price will change the quantity of tomatoes demanded more than the demand for coffee. Buyers of fresh tomatoes are more sensitive to price, and they purchase much less at higher prices than at lower prices. One reason may be that buyers can more easily find substitutes for fresh tomatoes than for coffee, which would cause the demand for tomatoes to be more elastic.

Handout 5-5 (continued)

SAMPLE PROBLEM

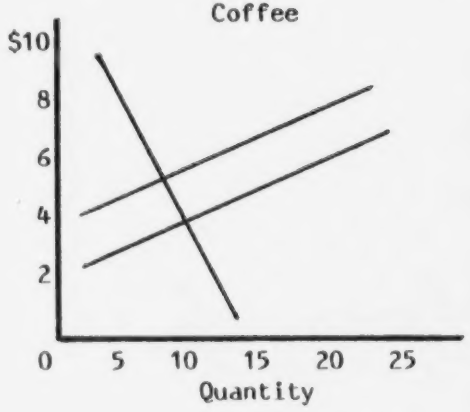
GIVEN

Coffee



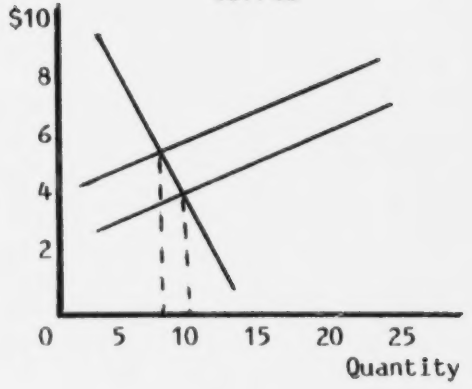
STEP 1

Coffee



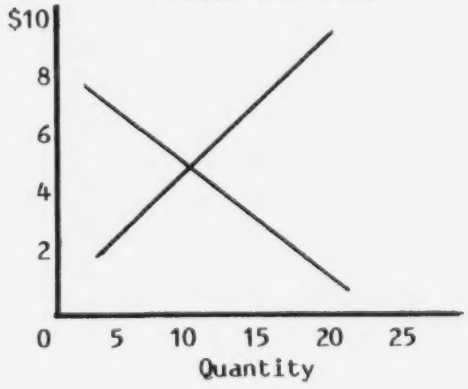
STEP 2

Coffee



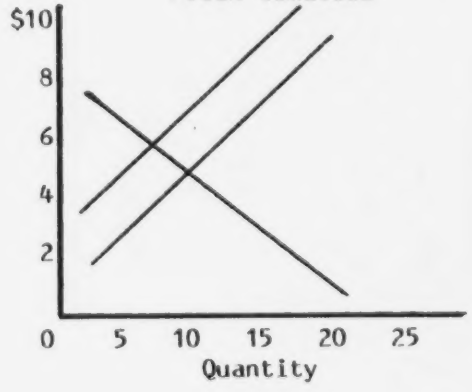
GIVEN

Fresh tomatoes



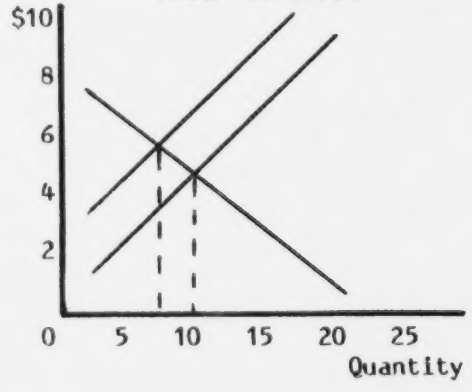
STEP 1

Fresh tomatoes



STEP 2

Fresh tomatoes



DEMAND AND SUPPLY SCHEDULES

FOR THE THREE PROBLEMS

Problem 1

Color television sets

P	QTY D	QTY S	QTY S after tax
$ 250	100	25	15
500	50	50	40
750	12	75	65
1000	0	100	90

Health care services

P	QTY D	QTY S	QTY S after tax
$ 250	70	25	15
500	50	50	40
750	40	75	65
1000	28	100	90

Problem 2

Automobile tires

P	QTY D	QTY S	QTY S after tax
$ 50	440	185	50
100	260	350	235
150	125	470	380
200	0	600	500

Electricity

P	QTY D	QTY S	QTY S after tax
$ 50	440	260	200
100	260	310	270
150	120	370	330
200	0	440	380

Problem 3

Chicken

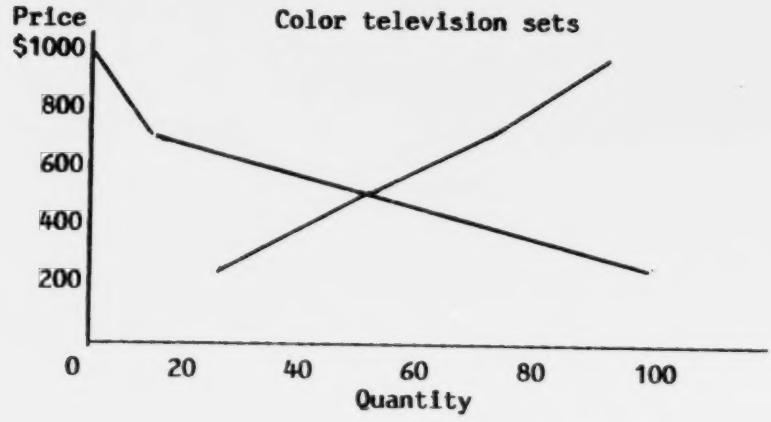
P	QTY D	QTY S	QTY S after tax
$ .20	2440	0	0
.40	1600	350	0
.60	1000	1000	450
.80	500	1600	1050
1.00	0	2300	1650

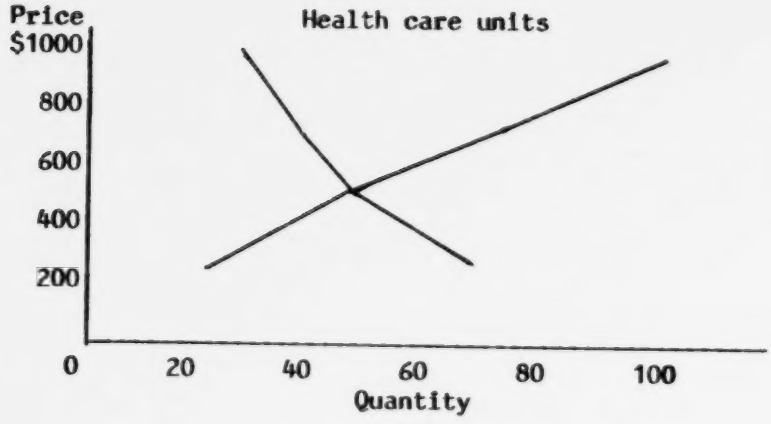
Bananas

P	QTY D	QTY S	QTY S after tax
$ .20	1400	600	400
.40	1150	850	700
.60	800	1200	850
.80	700	1400	1150
1.00	600	1500	1400

Problem 1

The government needs more revenue. Given the demand curves for color television sets and health care services, to which product should a $100 tax be added?





Color television sets Q_e = ____ Q_t = ____

Health care units Q_e = ____ Q_t = ____

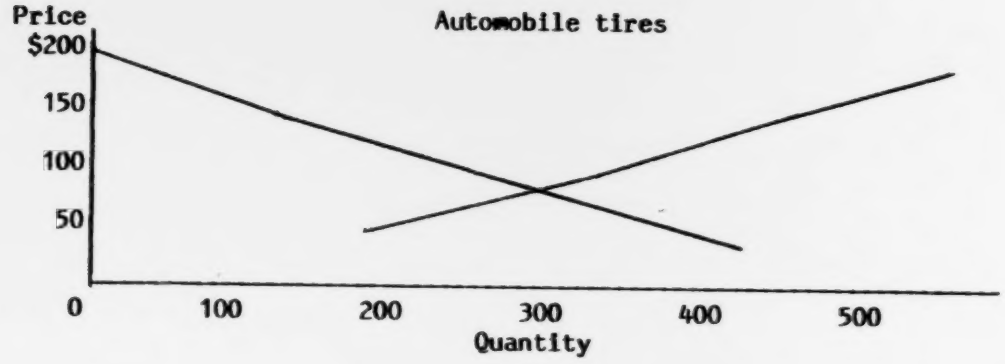
Total Government Revenues
Color television sets = ____
Health care units = ____

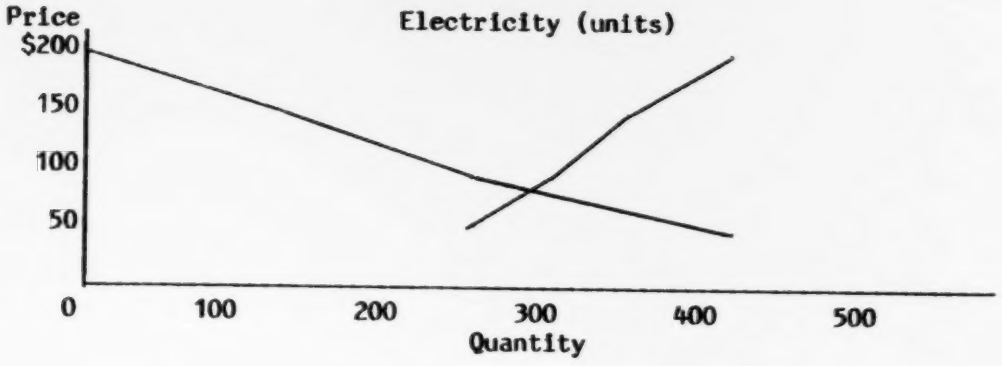
The government should tax _____ because:

Can you think of reasons why the government might not choose to raise taxes in this way?

Problem 2

The government needs more revenue. The demand for automobile tires and electricity seems to be about the same in any given month. On which product should the government add a $30 tax?





Automobile tires Q_e = ____
Q_t = ____

Electricity (units) Q_e = ____
Q_t = ____

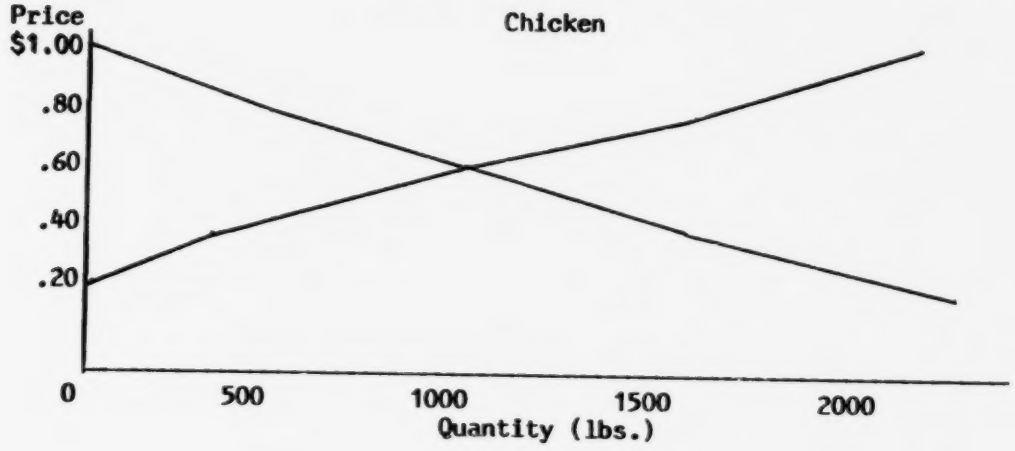
Total Government Revenues
Automobile tires = ____
Electricity = ____

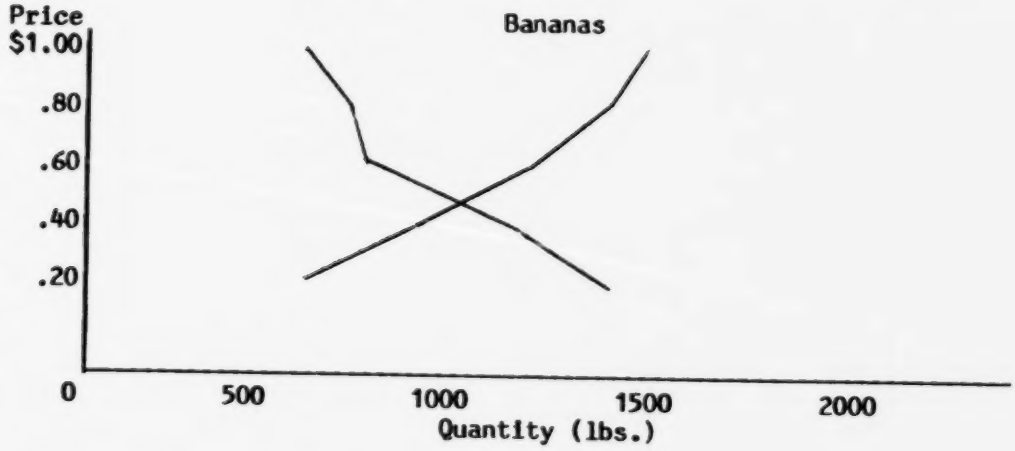
The government should tax _____ because:

Can you think of reasons why the government might not choose to raise taxes this way?

Problem 3

The government needs more revenue. Given the projected supply and demand curves for chicken and bananas in April, to which product should a $.20 tax be added?





Chicken (lbs.) Q_e = ____ Q_t = ____

Bananas (lbs.) Q_e = ____ Q_t = ____

Total Government Revenues
Chicken = ____
Bananas = ____

The government should tax _____ because:

Can you think of reasons why the government might not choose to raise taxes in this way?

MODULE 6

TAXES...ARE THEY FAIR?

Participant Objectives:

1. State characteristics of taxes that participants believe are fair and characteristics of taxes that participants believe are not fair.

(What Is a Fair Tax?) **15 minutes**

2. A. View Program Six, "Taxes...Are They Fair?"
   B. Briefly review the definitions of key terms and student activities provided in the Teacher's Guide.
   C. Ascertain in which parts of the curriculum the program can be used.

(Taxes...Are They Fair?) **20 minutes**

3. A. Rank the characters depicted in the film according to the amounts each paid for each of three taxes.
   B. Determine which of the taxes best fits the criteria of ability to pay based on income, ability to pay based on wealth, and benefits received.

(Who Gets the Fairest Shake?) **20 minutes**

4. A. Classify specific taxes according to the criteria of ability to pay and benefits received.
   B. Evaluate the fairness of the specific taxes according to the criteria of ability to pay and benefits received.

(Fair? Unfair? Or in Between?) **45 minutes**

5. Determine the pros and cons of using the benefits received principle as the basis of raising revenues in order to underwrite

the costs of selected goods and services provided by the government.

(Should We Have More Taxes Based on Benefits Received?) **45 minutes**

6. A. Analyze tax data to determine how closely the federal income tax for individuals follows the criteria of ability to pay based on income.

   B. Make a judgment whether the federal income tax is based too largely or too insignificantly on the criteria of ability to pay according to income.

(Is the Federal Income Tax Really Based on the Ability to Pay?) **30 minutes**

WHAT IS A FAIR TAX?

(Time: 15 minutes)

Objective 1:

State characteristics of taxes that participants believe are fair and characteristics of taxes that participants believe are not fair.

Materials:

Chalkboard or blank transparency and overhead projector

Description:

This activity introduces Program Six. It provides background information to help participants conduct the student activities suggested in the Before the Program section of the Teacher's Guide.

Explain to participants that one controversial question regarding taxes concerns which taxes are "fair" or are fairer than others. For example, is a sales tax more fair or less fair than a personal income tax? Is a property tax more fair or less fair than a personal income tax?

There are no absolute answers to such questions in economics or in any other social science. However, economics can provide some important guidelines for discussions about the fairness of taxes.

On the board (or blank transparency) write the following headings, then have participants make suggestions about what to include on the two lists:

What's Fair About Taxes	What's Not Fair About Taxes

After several minutes, have participants analyze the lists to see if they suggest any general criteria for assessing the fairness of a

tax. Tell participants that two of the most important criteria of fairness in tax policy are ability to pay and benefits received. Point out items on the lists that are related to these two criteria. As participants watch the film, they should determine which of the items on the lists they developed meet these criteria and which, if any, do not.

TAXES...ARE THEY FAIR?

(Time: 20 minutes)

Objective 2:

A. View Program Six, "Taxes...Are They Fair?"

B. Briefly review the definitions of key terms and student activities provided in the Teacher's Guide.

C. Ascertain in which parts of the curriculum the program can be used.

Materials:

Program Six, "Taxes...Are They Fair?" and appropriate equipment for viewing.

Description:

Before showing the film, have participants read and briefly discuss the vocabulary section of the Teacher's Guide for Program Six. Ask the participants to watch the film for examples of the following concepts: benefits received; ability to pay based on wealth; ability to pay based on income.

After participants have seen the film have them read and discuss the student activities suggested in the After the Program section of the Teacher's Guide. Also have them briefly discuss how this program relates to various topics and/or courses in their school's curriculum.

WHO GETS THE FAIREST SHAKE?

(Time: 20 minutes)

Objective 3:

A. Rank the characters depicted in the film (Program Six) according to the amounts each paid for each of three taxes.

B. Determine which of the taxes best fits the criteria of ability to pay based on income, ability to pay based on wealth, and benefits received.

Material:

Handout 6-3

Description:

Review the main points made in the film to assure that participants understand the three criteria--ability to pay based on income, ability to pay based on wealth, and benefits received. Distribute and have participants complete Handout 6-3. Discuss participants' answers to the table and to the questions.

Answers:

	Property Tax	Gasoline Excise Tax	Income Tax
Linda	-	2	3
Linda's parents	1	3	2
Karen and Jack Sackler	1	1	1

After completing the table and reviewing the participants' rankings, discuss answers to the questions:

a. Which of the taxes seems fairest considering only the ABILITY TO PAY based on INCOME criterion?

(The income tax is fairest.)

b. Which of the taxes seems fairest considering only the BENEFITS RECEIVED criterion?

(The benefits derived from the gasoline excise tax vary directly with the number of miles a person or family drives. Since these tax revenues are used largely for road construction and repair, this tax is usually cited as a good example of a tax based on the benefits received principle.)

c. Which of the taxes seems fairest considering only the ABILITY TO PAY based on WEALTH criterion?

(Probably the property tax, since housing is typically the largest asset owned by middle-income taxpayers.)

d. Which of these taxes is, on the whole, the most fair?

(Answers will often vary, but note in the discussion how much of the disagreement relates to which of the criteria different participants consider most important.)

HANDOUT 6-3

WHO GETS THE FAIREST SHAKE?

Rank the characters according to the amounts each paid for each of the taxes. Put a 1 in the box for the character who paid the most, a 2 in the box for the character who paid the next, and so on. If the character does not pay a particular tax, leave the appropriate box blank. The following assumptions should be made: (1) Linda's parents earn less than Karen and Jack Sackler; (2) the two houses owned by Linda's parents and the Sacklers are about equal in value; and (3) Linda drives more miles than her parents but less than Jack Sackler.

	Property Tax	Gasoline Excise Tax	Income Tax
Linda			
Linda's parents			
Karen and Jack Sackler			

After completing the table, answer the following questions:

a. Which of the taxes seems fairest considering only the ABILITY TO PAY based on INCOME criterion?

b. Which of the taxes seems fairest considering only the BENEFITS RECEIVED criterion?

c. Which of the taxes seems fairest considering only the ABILITY TO PAY based on WEALTH criterion?

d. Which of these taxes is, on the whole, the most fair?

FAIR? UNFAIR? OR IN BETWEEN?

(Time: 45 minutes)

Objective 4:

A. Classify specific taxes according to the criteria of ability to pay and benefits received.

B. Evaluate the fairness of the specific taxes according to the criteria of ability to pay and benefits received.

Materials:

Handout 6-4 (or the Student Handout provided in the Teacher's Guide for Program Six); five sheets of thin cardboard, about 8 1/2" x 11" each; a broad-tipped marking pen; masking tape

Description:

Have participants read and complete Handout 6-4. Then have them discuss how and why they characterized the various taxes as they did. For each tax, ask those who chose ability to pay as the primary criterion for the tax to gather at the front of the room, ask those who chose benefits received to gather at the rear, and have those who thought some other criterion was applicable to remain in their seats. Ask one or two members of the ability to pay group to explain the reason for their choice. Do the same for the benefits-received group. Then ask all those in the "other" group to present their reasons.

Mark each sheet of cardboard with one of the following labels: VERY FAIR, FAIR, UNDECIDED, UNFAIR, VERY UNFAIR. Tape each sign to the wall in a different part of the room. Taking each tax in turn (omit some if remaining time is too limited), have participants go to the sign that corresponds to their rating of the fairness of the

tax. For example, participants who feel that the driver's license fee is fair would stand by the sign marked FAIR. After all the participants have taken their places at the appropriate signs, ask one participant at each sign to give a reason or reasons for the choice.

Possible Rationales for the Classifications in Handout 6-4

a. Driver's license fees. Based on benefits received: only those who secure licenses may operate motor vehicles on public roads and highways.

b. Federal personal income tax. Primarily based on ability to pay according to income: as taxable income rises, so does the rate.

c. Federal estate tax. Primarily based on ability to pay according to wealth: at some point above the exemption, the percent paid in taxes increases as the value of the estate rises. Beginning in 1985, the highest rate is 50 percent on estates of $2,500,000 or more after the amount exempted.

d. Occupational licenses. Based on neither criterion. The tax does not increase with higher levels of wealth or income nor is there generally any direct relationship between benefits received by those paying the tax and the amount of tax paid.

e. Real property school tax. Primarily based on ability to pay according to wealth: the higher the assessed value of the property, the higher the amount of the tax.

f. State and local sales taxes. Not directly based on either criterion. Those with higher incomes usually pay more in sales

taxes. But the sales tax is normally regarded as a regressive tax, because the percentage of income paid in sales taxes usually rises the lower the income level of the payer of such taxes.

g. Social security tax. For wage earners, based on both benefits received and, to some degree, ability to pay according to income. Only those who contribute to the system share in the benefits, which are partly related to the amount of tax paid. A single tax rate applies up to the statutory maximum. In 1984, the statutory maximum was $37,800 in wages. To wage earners, therefore, the tax is a proportional tax based on ability to pay up to whatever the statutory maximum is in a given year. (Employers pay a rate and amount equal to that of their employees: Self-employed persons pay the combined rate.)

h. Cigarette excise tax. Based on neither criterion. The tax does not increase with higher levels of wealth or income, nor is there any direct relationship between benefits received by those paying the tax and the amount of tax paid.

i. State unemployment insurance tax. Based to some degree on benefits received. The employer usually pays the entire tax. Hence, the program is an employee fringe benefit based on wages received, up to a maximum benefit, which varies from state to state. Only employees who are laid off by their firms are eligible to receive the benefit. Rates are usually based on the employer's layoff record; therefore, firms with stable employment records pay the lowest rates.

j. Gift tax. Ability to pay based on income and wealth: there is no tax on the value of gifts below a legally set maximum.

HANDOUT 6-4

FAIR? UNFAIR? OR IN BETWEEN?

Ten different types of taxes are listed below. Read the description of how each tax is calculated and what use its revenues are put to. Then do the following: (1) decide whether the tax rate appears to be determined primarily according to taxpayers' ability to pay based on wealth or income, or according to benefits received. Then place a check mark in the appropriate box of the worksheet. If neither criterion applies, place a check mark in column 3 and note in the margin a possible criterion you think does apply. (2) Place a check mark in the box below the fairness ratings (columns 4 through 8 of the worksheet) that you consider best applies to each tax, taking into consideration how you classified the tax in columns 1-3. Be prepared to justify your judgments.

Tax	Method of Calculation and Use of Revenue
a. Driver's license fees	A flat amount that goes toward the general revenue of the state.
b. Federal personal income tax	In general, a percentage of income (after allowable exemptions, credits, and deductions), which starts from zero for very low incomes. The first bracket of income which is taxable is taxed at a low percentage rate. The rate increases by specified tax brackets until a maximum rate of 50% is reached. The 50% applies to all taxable income beyond a specified amount. Some income may be subject to

	alternative, lower rates. Revenue goes into general funds; it is not earmarked for any particular program or item.
c. Federal estate tax	In general, a percentage of the value of estates in excess of some specified amount, equivalent to ($325,000 in 1984, and scheduled to reach $600,000 for 1987.) Funds inherited by one spouse from a deceased spouse are not taxable at that time. Revenues go into general funds.
d. State and local occupational licenses	Usually annual fees. Revenues go into general funds.
e. Real property school tax	A percent of the assessed value of the property after any allowable exemptions. Used to support public elementary and secondary schools.
f. State and local sales tax	General excise tax on all retail sales levied by states and/or municipalities. Some sales tax provisions exclude food, prescription drugs and medicines, and certain services such as gas and electric utilities. Usually paid by consumer at time of purchase. State sales taxes in 1984 generally ranged between 4 and 8

	percent of a product's pretax price. Revenue usually goes into general funds.
g. Social security tax	In 1984, the statutory rate was 14 percent of annual wages and salaries up to a statutory limit, half (7%) paid by workers, half (7%) paid by employers; self employed paid 14%. (In 1984, the statutory limit--amount of earnings subject to tax--was $37,800. Under existing law as of 1984, the earnings subject to tax or existing "earnings base" will change in each subsequent year along with any cost-of-living adjustments granted to social security beneficiaries in the preceding year. In addition, the effective rate may differ from the statutory rate, depending on annually determined credit allowances.) Revenues fund benefits paid through the social security system.
h. Cigarette (excise) tax	A fixed dollar amount based on weight and quantity.
i. State unemployment insurance tax	A percent of employer's payroll (typically up to earnings of $7,000 annually per employee), usually based on the firm's past history of laid off

	workers to whom unemployment insurance benefits were paid. Revenues fund benefits.
j. Federal gift taxes	A percentage of the amount of gifts to others in excess of some specified amount ($10,000 per year in 1984); paid by the donor of the gift(s). Revenues go into general fund.

WORKSHEET FOR EVALUATING FAIRNESS OF TAXES

TAX	Criteria			Fairness Categories				
	Ability to pay (1)	Benefits (2)	Other (3)	Very Fair (4)	Fair (5)	Undecided (6)	Unfair (7)	Very Unfair (8)
a. Driver's license fees								
b. Federal personal income tax								
c. Federal estate tax								
d. State and local occupational licenses								
e. Real property school tax								
f. State and local sales tax								
g. Social security tax								
h. Cigarette (excise) tax								
i. State unemployment insurance tax								
j. Federal gift tax								

SHOULD WE HAVE MORE TAXES BASED ON BENEFITS RECEIVED?

(Time: 45 minutes)

Objective 5:

Determine the pros and cons of using the benefits received principle as the basis of raising revenues in order to underwrite the costs of selected goods and services provided by the government.

Material:

Handout 6-5

Description:

The fairness embodied in the benefits received principle is based on the proposition that people should pay taxes roughly proportionate to benefits they receive from goods and services provided by government. This principle correlates well with buyer/seller relationships in the marketplace; in the market buyers generally pay sellers only for those goods and services from which they can gain benefits that they desire. The primary purpose of this activity is to determine the fairness of using the benefits received criterion as a primary principle for enacting taxes that pay for various goods and services provided by government.

Review the benefits received criterion of tax fairness. Then distribute Handout 6-5. Have all participants read the handout. After they have done so, conduct a discussion based on participants' answers to the questions. It is likely that the participants will disagree on the answers to many or even all of the questions.

Possible Responses to the Questions in Handout 6-5

1. What is your general reaction to Mr. Jones' reasons why more

taxes should be based on the benefits received principle rather than the ability to pay? (Reactions may vary. Indeed, some may claim that there is no assurance that taxpayers as a whole would prefer to pay taxes based on benefits received rather than on ability to pay. In other words, some participants may judge that the statements by Mr. Jones are merely his opinions. Other participants may support Mr. Jones' position on one or another tax. Perhaps a few will support his positions on all the taxes.)

2. Mr. Jones recommends how five different goods or services provided by local government should be funded. How fair do you think each recommendation is? Give reasons.

   a. Support of public education: Children are the primary beneficiaries of public education because it enables them to develop the skills, knowledge, and understanding necessary to become more useful and productive members of the society. The community as a whole also benefits if its young people are educated, so why shouldn't those without children assist in paying the costs of educating the young? Furthermore, under Mr. Jones' tax plan, low-income families with many children would be unable to pay school taxes for all of their offspring. Does this mean that their children would be excluded from an education? Is it fair to preclude children from the right to receive a formal education, because of their family financial position?

   b. Provision for fire and police protection: Some low-income families with little wealth may not be able to pay any tax, no

matter how low. Is it fair to withhold fire and police services from them? In the case of fire protection, is it wise to withhold services from a non-taxpaying family when a fire in its home could spread to the house of a family that has paid the tax--or to many other family or business buildings? How can police services such as traffic control or crime prevention be withheld from families unable to pay a tax to provide police services? Finally, the wealthy stand to gain more from the same unit of fire or police protection than the less wealthy, therefore the wealthy should pay more in taxes for these services.

c. Support of home for elderly: Elderly people in the community would be the primary beneficiaries of the home, but they would not be the only beneficiaries. Some can claim that a home for the elderly benefits the entire community by providing care for the elderly that a family cannot. Furthermore, if all in the community who reach old age will be eligible to enter the home, is there not a good case for supporting the home through a general tax? Moreover, is it fair to tax lower-income persons when they reach 55 years of age when they may not be able to afford the tax and may not be able to pay rent should they otherwise be eligible to enter the home? Yet those who are 55 years of age and older can be deemed more likely to eventually benefit from the tax than younger people who do not pay the tax, which is why younger persons are not required to pay it.

d. Funds for a new bridge: The plan to fund the new bridge accords well with the principle that those who primarily benefit from a facility to pay for it. People who do not drive would help pay for the bridge because the tolls and the portion of the city vehicle tax derived from taxing commercial vehicles will to some degree be passed along in higher prices for the goods and services that non-drivers pay for in the market place. Yet, some may wonder whether it is fair to preclude some low-income families from owning a car if the city vehicle tax is too high for them to pay. Whether the latter is a serious problem largely depends on how high the tax is set. Low-income drivers may not be able to afford the toll or go out of their way to avoid the toll bridge.

e. Funds to provide and maintain a new park: Mr. Jones' plan is indeed based on taxing according to benefits received. Some participants may question why those residential property owners within half a mile of the park are the only ones taxed when it could be argued that the entire community will benefit from the park, especially if it is a large one. Participants will probably express concern as to whether low-income families should be excluded from the park because of the admission charge.

3. In every instance in which you differ from Mr. Jones, how would you provide the necessary funding? (Answers will vary.)

4. Summarize your thinking in respect to some possible problems that arise when taxation is based on the benefits received criterion.

(The criterion is difficult to apply because it is hard to agree on who actually benefits from the goods and services. Further, low-income individuals and families can be easily excluded from use of a good or service if the tax is too high, which then raises a question of equity. Sometimes, it is unwise to exclude some taxpayers from the benefits of a service if they do not or cannot pay because of the possible damaging effects on others--e.g., fire protection.)

5. In general, do you believe that more of the taxes in your community should be based on the benefits received criterion? Why or why not? (Answers will vary. Some may suggest that some publicly provided goods and services should be paid for by a combination of taxes based on ability to pay and taxes based on benefits received. This position recognizes that there are advantages and disadvantages associated with each type of tax.)

HANDOUT 6-5

SHOULD WE HAVE MORE TAXES BASED ON BENEFITS RECEIVED?

Instructions: Read the narrative below and then frame your answers to the questions which follow in preparation for a general discussion.

Mr. Jones, a leading member of the community, believes that too many of its taxes, such as the property and state income taxes, are based on the ability to pay according to income and wealth. For a number of reasons he would like to see more of local taxes based on benefits received.

First, he thinks many taxpayers don't like to pay taxes if they do not receive any direct benefits for those taxes. For example, many in the community do not use the local parks or schools but must still pay for them through property taxes based on the ability to pay. He claims that it is just not fair that one must pay for things one does not use.

He goes on to claim that people wouldn't be so averse to paying taxes if taxes were more directly tied to the benefits that those people received. As he puts it, taxpayers will know what they are getting for their tax dollars. That is not the case when taxes are based on ability to pay according to income or wealth. Thus, because people don't see what they are "buying" with their taxes, they often believe that tax monies are just wasted.

He also believes that if more taxes were levied according to benefits received, there might well be a closer link between what the citizenry wants the government to provide in the way of goods and

services and those that are actually delivered. For example, if people were making little use of a municipally-owned bus service for which a fare was charged (as revenue for the municipality, the fare can be considered as a form of tax), the government could see that there is insufficient demand. It could then stop incurring a loss on the service and try to derive funds by selling the buses and any other related equipment to a privately owned bus company located elsewhere or to another municipality.

His recommendations about how some goods and services provided by local government should be funded include:

a. Support of public education - The parents, whose children are the primary beneficiaries of education, should support the schools by paying a school tax resembling the tuition they would pay to a private school.

b. Provision for fire and police protection - Each family should pay a tax based on the amount of its wealth. Family units with little wealth would pay less than those with considerable wealth and many family members.

c. Support of home for elderly - All citizens 55 years or older would pay a flat tax each year. All persons who pay the tax would be eligible to live in the home when they reach the age of 70. This tax plus a rent paid by the occupants of the home would be the home's main sources of support. Those who are likely to benefit pay for the home, i.e., younger people are excluded because it is less certain that they will ever use the home in future years.

Handout 6-5 (continued)

d. Funds to erect and maintain a new bridge - Since most vehicles in the community will use the bridge, it should be funded by a substantial increase in the municipal tax on vehicles. Tolls--a form of tax--should also be collected from everyone using bridge.

e. Funds to provide and maintain a new park - Should be paid for by a special annual tax on residential property owners who own property within one half mile of the park and by an admission charge to all who use the park.

Questions

1. What is your general reaction to Mr. Jones' reasons why more taxes should be based on the benefits received principle, rather than ability to pay? Do you agree or disagree with the points he makes?
2. Each of Mr. Jones' recommendations for how to raise tax monies to fund five goods or services provided by the municipal government is based on the benefits received principle. Is each recommendation fair or unfair? Give reasons for your position.
3. In every instance in which you differ from Mr. Jones, how would you provide the necessary funding?
4. Summarize your thinking in respect to some possible problems that arise when taxation is based on the benefits received criterion.
5. In general, do you believe that more of the taxes in your community should be based on the benefits received principle? Why or why not?

IS THE FEDERAL INCOME TAX REALLY BASED ON THE ABILITY TO PAY?

(Time: 30 minutes)

Objective 6:

A. Analyze tax data to determine how closely the federal income tax for individuals follows the criterion of ability to pay according to income.

B. Make a judgment about whether the federal income tax is too largely or too insignificantly based on the criterion of ability to pay according to income.

Material:

Handout 6-6

Description:

This activity provides participants with information on how closely the federal income tax on individuals follows the criterion of ability to pay based on income. The activity should also stimulate discussion about how closely participants believe this tax should follow the criterion of ability to pay based on income.

Distribute Handout 6-6. Take some time to explain the data in Table A. Indicate that about 96 million federal tax returns for individuals were filed in 1982. The total adjusted gross income from returns filed by individuals was $1,847.8 billion. After subtracting $284.7 billion of itemized deductions, $233.1 billion of exemptions, and other adjustments, the total taxable income on individual returns was $1,468.9 billion. The federal income tax liability on that income totaled $285.6 billion.

Table B shows how these incomes, exemptions, deductions, taxable

income, and taxes paid were distributed on a percentage basis according to five income brackets and a sixth group which had no adjusted gross income. Starting from the right hand column, the first row in the table shows that 8% of all reported income in 1982 was declared by individuals or families with adjusted gross incomes of $100,000 or more, 13% of all reported income was declared by those with adjusted gross incomes of $50,000-$99,999, and so on. Also starting from the right, the fifth row shows that the highest income group declared 8% of total taxable income. The right hand column also shows that the same group claimed only 1% of all exemptions, 11% of all deductions, and paid 17% of all federal income taxes collected that year. Other rows and columns are read in the same manner. After participants understand the layout of the table, have them answer the questions in the handout.

Suggested Replies to the Questions in Handout 7-B.

1. Did the information on income contained in the first row of Table B suggest that it would have been possible to tax the rich to pay for all goods and services provided by the U.S. federal government? (No. The data shows that about half of all adjusted gross income goes to those with incomes in the $20,000-$50,000 bracket. Therefore a large share of taxes must be collected from individuals and families in that bracket.)
2. The exemptions to which the data in the second row apply include income exempt from taxation because taxpayers support one or more dependents, because a taxpayer is 65 years of age or older,

because a taxpayer is blind, and several other reasons. In comparing the percent distribution of exemptions to the percent distribution of adjusted gross income, in which income groups do the largest share of exemptions fall? Does the pattern you find contribute to lower tax payments by those less well off and greater tax payments by those better off, i.e., does the pattern of exemptions suggest that the ability to pay principle is being followed? (Taxpayers in the nontaxable, under $10,000, and $10,000-19,999 brackets have a proportionately greater percentage of their incomes untaxed because of exemptions, than do those at the three highest income levels. For example, those in the under $100,000 income range had 9% of total adjusted gross income but had 26% of total allowed exemptions. The $100,000 and over group had 8% of adjusted gross income but only 1% of total allowed exemptions. This finding contributes to the progressiveness of the income tax.)

3. Deductions in the third row include a myriad of items, including contributions to charities, homeowner property taxes, interest payments, among many others. In comparing the percentage distribution of these deductions to the percentage distribution of adjusted gross income, in which income groups are taxable incomes decreased the most? Does this pattern suggest that the ability to pay principle is being followed? (Those in the three highest income groups benefited more from deductibility than did those at the lower income brackets. For example, those in the

$100,000 and over group have 11% of the allowable deductions but only 8% of adjusted gross income. Meanwhile, those in the under $10,000 income group have 9% of the adjusted gross income but only 4% of the allowable deductions. Generally, deductions help higher income groups the most, which is not surprising since many lower-income people cannot use deductions to as great an extent as those with higher incomes. An example: Many lower-income families cannot afford to own their own homes so they cannot take advantage of the deductions for interest paid on a mortgage and property taxes on a home. Such deductions do not follow the ability to pay principle, since higher income groups can lower their taxable income more than lower-income groups. The deductibility pattern suggests that the federal income tax is used to accomplish other purposes than simply to raise revenues according to the ability to pay. Among these purposes are to foster contributions to charities and to encourage home ownership.)

4. The percentage of taxable income in each income group is given in the fourth row. Compare the percentages in this row with those in the first row which show data for adjusted gross income. What seems to have happened to the distribution of taxable income among income groups after deductions and exemptions are taken into account. (Nothing. The percentage distribution among income levels for adjusted gross income and taxable income are almost exactly the same. The relative tax advantage of

exemptions gained by the lower-income groups through exemptions are counterbalanced by the relative tax advantages gained by higher income groups through deductions.)

5. Look at the fifth column, and decide whether the federal income tax in 1982 resulted in payments based on the ability to pay? Why or why not? (It is based on the ability to pay, as can be seen by comparing the percentages of adjusted gross in the top row with the percent of all taxes paid in the bottom row. For example, the under $10,000 income group had 9% of adjusted gross income but paid 3% of the taxes; the $100,000 and over group had 8% of adjusted gross income but paid 17% of the taxes.)
6. Considering the last row, which shows the percentage of all taxes paid according to income, what changes would you institute to make the tax levy fairer? (Answers will vary.)

HANDOUT 6-6

IS THE FEDERAL INCOME TAX REALLY BASED ON THE ABILITY TO PAY?

Table A

Data on Federal Income Tax Collection From Individuals, 1982

Number of returns	Approximately 96 million
Total adjusted gross income	$ 1,847.8 billion
Itemized deductions	284.7 billion
Exemptions and other adjustments	233.1 billion
Taxable income	1,468.9 billion
Federal income Tax liability	285.6 billion

Table B

Percentage Distribution of Selected Tax Data According to Income Group 1982

Share of Total	Income Group (based on adjusted gross income)					
	No adjusted gross income	Under $10,000	$10,000-19,999	$20,000-49,999	$50,000-99,999	$100,000 and more
Percent of all adjusted gross income	-	9	19	52	13	8
Percent of all exemptions allowed	1%	26	26	41	5	1
Percent of all allowable deductions	-	4	11	56	18	11
Percent of taxable income	-	8%	19%	52	13	8
Percent of all taxes paid	-	3	13	49	18	17

The information on these tables is adapted from Table 1, Preliminary Income and Tax Statistics for 1982 Individual Income Tax Returns, Statistics of Income Bulletin, Department of the Treasury, Internal Revenue Service, Volume 3, Number 3, Winter 1984-85, pp. 17-20.

(Percentages may not total to 100 due to rounding.)

PART III

LIST OF SUPPLEMENTARY MATERIALS

This section contains annotations of a variety of print and audiovisual materials that are useful for reinforcing and extending the concepts presented in the Tax Whys: Understanding Taxes film series. Entries are listed in alphabetical order under the following headings:

General References

Printed Reference Materials on Taxes and Related Topics

Films

Filmstrips

Games and Simulations

Audio Cassettes

The lists are not exhaustive. With a few exceptions, print materials published before 1979 are generally excluded. For more comprehensive listings, users should refer to the published bibliographies cited under "General References."

NOTE: The full names and addresses of the publishers and other suppliers are listed at the end of this section.

GENERAL REFERENCES

Aspects of Economic Education in the Classroom. Second edition. Securities Industry Foundation for Economic Education, 1982.

An inventory of educational materials and resources.

Audiovisual Materials for Teaching Economics. Charlotte T. Harter, David M. Nelson, and John P. Farrell. Joint Council, 1980.

Annotates more than 600 AV items for education in economics from kindergarten through college. Describes the process for choosing the entries, lists items by grade level, and provides names and addresses of publishers and distributors.

Catalog of Materials in Consumer and Economic Education. Social Science Education Consortium. Annual.

Catalogs on special topics, such as "Labor" and "Energy" are issued periodically.

A Guide to Games and Simulations for Teaching Economics. Cathy R. Wilson and Mark C. Shug. Third edition. Joint Council, 1979.

Annotations of 130 items. Discusses construction, selection, evaluation, and use of noncomputer games. Contains lists of other catalogs, journals, and newsletters in the field as well as the names and addresses of publishers of games and simulations.

Master Curriculum Guide in Economics. Joint Council.

A series designed for use in instructional planning and in curriculum development projects that introduce economic concepts into a variety of courses. Can also be employed by methods instructors or others responsible for preservice and inservice training of teachers. The MCG is not intended to establish a single prescribed economics curriculum for use by all schools but to furnish guidelines by which school systems can more easily integrate economics into their existing courses of study. Title of individual volumes in the series include:

A Framework for Teaching the Basic Concepts. Phillip Sanders, G. L. Bach, James D. Calderwood, and W. Lee Hansen. Second edition. Joint Council, 1984.

Concise statement of the basic concepts and generalizations for teaching economics in the K-12 curriculum. Summarizes the structure and substance of economics as understood by the majority of economists and economic educators.

Teaching Strategies:

In addition to the volume described above, the MCG series contains a variety of materials designed to help teachers and curriculum coordinators integrate economics in existing junior and senior high school courses. Titles of volumes containing strategies for teaching economics at the high school level are listed on the next page.

Tax Whys
Supplementary Materials

Junior High School Level (Grades 7-9). Ronald A. Banaszak and Elmer U. Clawson. Joint Council, 1981.

Basic Business and Consumer Education (Secondary Level). James F. Niss, Judith Staley Brenneke, and John E. Clow. Joint Council, 1979.

Consumer Economics. Robert Ristau, H. Michael Hartoonian, Peter Senn, and Ruth Thomas. Joint Council, 1985.

High School Economics Courses. John S. Morton, Stephen Buckles, Stephen Miller, David M. Nelson, and Edward C. Prehn. Joint Council, 1985.

United States History (Secondary Level). James B. O'Neill. Joint Council, 1980.

World Studies (Secondary Level). James B. O'Neill. Joint Council, 1980.

Using Economics in Social Studies Methods Courses (College Level). Dennis J. Weidenaar. Joint Council, 1982.

PRINTED REFERENCE MATERIALS ON TAXES AND RELATED TOPICS

Analyzing Tax Policy: A Resource Guide. Thomas R. Swartz, John Roos, and John S. Morton. Joint Council, 1979.

Takes up the role of taxes in the economy, the various kinds of taxes, the criteria for evaluating the merits and demerits of taxes, and some political aspects of taxation. Also covers recent developments including the property tax limitations in California mandated by "Proposition 13." Contains overview for teachers, instructional activities, and materials for classroom use.

Big Government. Lawrence C. Murdoch, Jr.. Federal Reserve Bank of Philadelphia.

An 11-page booklet tracing the growth of the federal government from colonial times to the present. Includes a discussion of the major factors that triggered changes in the government's role. It presents the main points on both sides of the question often raised about the size of government: "How big is too big?"

The Distribution of the Tax Burden. Edgar K. Browning and William R. Johnson. American Enterprise Institute, 1979.

A provocative study that takes up the controversial issue of how the overall tax structure in the U.S. affects different income groups. Especially useful when read in conjunction with Who Bears the Tax Bruden, cited later in this section.

Tax Whys
Supplementary Materials

Economic Report of the President. Government Printing Office. Annual.

Released each February, this basic reference source includes extensive economic data about the U.S. economy and wide-ranging discussions of the current economic situation and current economic problems and policies.

The Economics of Taxation. Henry J. Aaron and Michael J. Boskin, eds. Brookings, 1980.

A book of articles by prominent economists on current issues in taxation--some are technical.

Equality and Efficiency: The Big Trade-off. Arthur Okun, Brookings, 1975.

A classic work by one of the foremost advisors on economic matters to Democratic administrators since World War II, Okun discusses the effects on efficiency and equality of a variety of economic policies, including tax policies.

Facts and Figures on Government Finance. Tax Foundation, Biennial.

A voluminous compendium of data on federal, state, and local taxation and spending.

Public Expenditures, Taxes and the Distribution of Income. Eugene Smolensky and Morgan Reynolds. Academic Press, 1977.

A discussion of the benefits resulting from government spending programs.

The Public Finances. James M. Buchanan. Third edition.

A public finance textbook by the leading authority in "public choice" economics. This approach treats the decisions of political and special interest groups economic choices based on self-interest.

Public Finance and the Price System. Edgar K. and Jacquelene M. Browning.

A textbook on public finance--much of it incorporating basic and intermediate-level price theory. A useful contrary presentation on some topics to the standard public finance text by Musgrave and Musgrave cited below.

Public Finance in Theory and Practice. Richard A. and Peggy B. Musgrave. Third edition. McGraw-Hill, 1980.

A classic textbook on public finance, encyclopedia in its coverage of facts and theories.

Taxes and You. Social Studies School Services, 1979.

A set of 50 spirit masters to help students learn how taxes are levied by federal, state and local governments, and how tax revenues are used.

Tax Philosophers: Two Hundred Years of Thought in Great Britain and the United States. Edited by Donald J. Curran. University of Wisconsin Press, 1974.

Contains many passages from famous as well as obscure authors. It is useful for tracing the history of ideas and public policies in history, economics, and social studies.

The Underground Economy in the United States and Abroad. Edited by Vito Tanzi. Lexington Books, 1982.

A collection of articles by someone who is a leading authority on the underground economy and on tax avoidance schemes and activities.

Understanding Taxes. Internal Revenue Service. Annual.

A colorful publication in magazine format that covers subjects such as the following: taxpayers responsibilities and rights; how to prepare an income tax return; history of taxation; economics of taxation; politics of taxation; state taxes; facts and fallacies about IRS; glossary of tax terms. A Teacher's Guide with activities, quizzes, and background information is also available.

The United States Budget in Brief. Government Printing Office.

A summary of the budget that includes data on the major budget categories.

Who Bears the Tax Burden? Joseph A. Pechman and Benjamin A. Okner. Brookings, 1974.

A classic study on the controversial issue of how the overall tax structure in the U.S. affects different income groups. Especially useful when read in conjunction with The Distribution of the Tax Burden by Browning and Johnson, cited above.

FILMS

The Age of Uncertainty. Feauturing John Kenneth Galbraith. Films, Incorporated.

A film series that presents the ideas of a liberal Harvard economist and former ambassador to India during the Kennedy administration. Galbraith calls for a greatly expanded role in the economy by the government. Many of his ideas contrast sharply with those of Milton Friedman, which appear in the film series Free to Choose, cited below.

The American Way of Taxing. National Audiovisual Center, 1977. Color. 28 minutes.

An Internal Revenue Service film that presents a history of American taxes from colonial days on. The film highlights why taxes

were needed at various points in history. Describes operations of the Internal Revenue Service. The use of taxes as a tool of fiscal policy is not covered.

Economic Stability. Federal Reserve Bank of Dallas, 1971. Color. 22 minutes.

Discusses the problems of economic stability and the costs of inflation and unemployment to society. Explains how fiscal and monetary policies can be used in the attempt to achieve a balanced economy, and some of the difficulties of putting them into effect.

Free to Choose. Featuring Milton Friedman. Public Communications.

A film/video-tape series that presents the ideas of a conservative economist who is a Nobel laureate. He staunchly advocates the market system and a limited role for government. Many of his ideas contrast sharply with those of John Kenneth Galbraith, which appear in the film series The Age of Uncertainty, cited above.

Give & Take. Agency for Instructional Technology/Joint Council on Economic Education/Canadian Foundation on Economic Education. Color. 1982.

A film/tape series on topics and concepts in personal economics for use in grades eight through ten. It consists of twelve 15-minute programs for use in consumer education, economics, business education, home economics, social studies, and other classes in which material on personal economics is presented. (See especially films #7 and #8, on government spending and taxes.) The films/tapes and Teacher's Guide are available from A.I.T.. A Workshop Leaders Handbook, normed test, and bank of test questions are available from the Joint Council. The film series is currently being shown by many Public Broadcasting Service television stations.

The Kingdom of Mocha. Standard Oil Company of Indiana. Color. 26 minutes.

An animated film that provides a short introduction and touches on many basic economic concepts. Mocha is a mythical island whose inhabitants experience rapid change as their economy develops from one using primitive barter to a complex modern day one. A booklet containing 10 student activities on spirit masters and a Teacher's Guide are also available.

Money Talks. Internal Revenue Service. Color. 26 minutes.

A film in which Benjamin Franklin and Alexander Hamilton conduct an historical tour demonstrating the major role taxes have played in the nation's development. May also be ordered on video-tape and duplicated by schools.

Money, Taxes, and Imagination. Centron Educational Films. Color. 18 minutes.

A lighthearted look at money and taxes. Traces some of the unusual forms of money and taxes employed at various times in different parts of the world. Explains the function of money and raises questions about the form money may take in the future.

The Quest and the Question. Federal Reserve Banks, 1971. Color. 22 minutes.

Discusses the problems of economic stability and the costs of excessive inflation and/or unemployment to our society. Explains how fiscal and monetary policies are used to achieve a balanced economy, and some of the difficulties in executing them. Reviews the varying effects on the economy from the use of various policies. (Important: available only from the Federal Reserve Banks of Boston, Atlanta, St. Louis, and Dallas.)

The Subject Was Taxes. Internal Revenue Service. Color. 16 1/2 minutes.

A brief review of taxes from earliest times, showing that taxes are not peculiar to present day society. May also be ordered on video-tape and duplicated by schools.

Taxes: Why We Have Them: Phoenix films.

A film reviews the U.S. tax system. Appropriate for secondary school students.

What Are Taxes All About? Carousel Films, Inc., 1973. Color. 24 minutes.

A CBS news reporter traces through the $39.45 deducted as taxes from his weekly paycheck to see what services government provides with this money.

What Happened To My Paycheck? Internal Revenue Service. Color. 16 1/2 minutes.

A high school student who takes a part-time job gains insight into the tax system through learning about payroll deductions and the processing of tax returns. May also be ordered on video-tape and duplicated by schools.

FILMSTRIPS

At Issue: Inflation. Schloat Productions/Prentice Hall Media/Social Studies School Service. 1975. Color. Cassette. Teacher's Guide.

Examines the causes of inflation, how inflation is measured, government policies that affect inflation, the effects of inflation on the buying power of income, and proposed means of stopping inflation.

An Economics Primer: $$$ To Donuts. Schloat Productions. Prentice Hall Media.

Four filmstrips on money, inflation, the basis of monetary policy, income distribution, and supply and demand. Three games and a poster come with the set.

The Inequality of Wealth in America. Social Studies School Service, 1976. Color. Cassette or record. Teacher's Guide.

Shows how the uneven distribution of wealth in the United States has held steady for more than a generation. The program looks at how the nation has attempted to reduce this inequality by means such as free public education and the graduated income tax.

Inflation-Recession-Depression. Prentice Hall Media, 1975. Four filmstrips, 12 minutes each. Cassette or record. Teacher's Guide.

(1) Money, Goods, and Labor, (2) Purchasing Power, (3) Prices and Spending, (4) Economic Controls. Explores the causes and consequences of inflation; of recessiobns and the Great Depression; considers monetary, fiscal, and wage-price control policies for dealing with unemployent and/or inflation.

Supply Side Economics. Chamber of Commerce.

A slide/cassette program supporting supply-side economic policies, including lower marginal tax rates on income, larger tax credits, and increased deductions for business investment.

Taxes, Taxes, Taxes: Who Pays the Bill? Prentice Hall Media. Color. Two filmstrips, 14 and 17 minutes. Cassette or record. Teacher's Guide.

An examination of government spending and taxing. Opens with a definition of public services and explanation of how they are financed. The reasons for the growth in public services are reviewed. Uses statements by public figures to take up matters such as the problems caused by the exodus of middle-class residents to the suburbs and voter rebellions. Discusses how to provide public services more efficiently in the face of growing costs; increasingdemands for such services and, in some cases, the insufficiency of revenues to supply them; tax reform and revenue sharing; and the future of public services.

GAMES AND SIMULATIONS

Budgets and Taxes. Education Ventures.

Simulation. Playing time: 2-4 hours. Accommodates 6-20 players. Participants first play the role of public officials who submit budget requests for the coming year. Then they play the roles of private citizens who are affected by increases or cutbacks in

public service and in taxes.

Inflation. Paul S. Amidon & Associates, Inc..
Simulation. Playing time: 1 hour. Accommodates 33 players. A role-playing activity that allows participants to experience aspects of the complex process of political-economic decision-making. The participants, who represent five major groups in the United States, attempt to influence the federal government in order to gain economic advantages as the government tries to control inflation.

Spiral. Interact.
Simulation. Playing time: 5-6 hours. Accommodates entire class. Spiral mirrors the nation's struggle to control inflation. Students role-play labor leaders, government employees, businessmen, farmers, bankers, investors, and consumers. Students also complete a research assignment which becomes a part of their interest group's presentation at a conference on inflation. The President draws up a proposal which is presented to Congress. The students, sitting at Congress, debate and decide whether to accept, modify, or reject the President's plan. The simulation ends with a general review of the phenomenon of inflation.

Taxes. Interact.
Simulation suitable for junior and senior high school students. Accommodates entire class. The purpose is to show how major taxes affect individual and community decisions. The students assume themselves to be engaged in one of a variety of occupations and develop a "taxation profile" that shows how various taxes affect them. The climax of the simulation is the enactment of a tax proposal by a community council.

AUDIO CASSETTES

Incentives and Labor Supply: Taxes and Benefits (Track A) Incentives and Labor Supply: Wages Policy (Track B). Audio Learning. 28 minutes. Teacher's Guide.
Two professors of economics discuss the labor market, including the competitive theory of wages, legislation respecting labor, and public policies to lessen inequalities in the distribution of income.

Inflation--Its Causes and Effects (Track A) Inflation--Possible Solutions (Track B). Audio learning. 28 minutes. Teacher's Guide.
The British economist Lord Vaizey and the British labor leader David Basnett discuss inflation: its costs and benefits; its causes, including demand-pull and wage-push inflation; the desirability of income ppolicies; and inflation in relation to national economic

objectives.

The Rich and the Poor (Track A) The Rich and the Poor--Narrowing the Gap (Track B). Audio Learning. 28 minutes. Teacher's Guide.

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